Vol. 21, No. 4 April, 1929

Journal of Home Economics

HOME ECONOMICS IN THE PHILIPPINE ISLANDS

ELVESSA ANN STEWART

Chief, Department of Home Economics, Bureau of Education, Manila

Home economics in the Philippine Islands had its beginnings in the primary school something over twenty years ago. Primary girls of those days, however, were not the tiny children of most of today's primary classes. Pictures of their activities show them as young ladies in the striking, attractive native costume with its long flowing skirt and train.

At first the work consisted of sewing, cooking, and housekeeping. Later, when it was extended to the intermediate grades, there were added embroidery and lace-making, which included crochet, filet, and various kinds of bobbin lace. The work was unorganized, as might be expected. Every one of the forty-five provinces stressed the thing that fitted, or seemed to fit, best in the community or that had the greatest popular appeal. At that time there were no patterns for sewing classes; no embroidery or lace designs; no models or instructions of any kind; no texts, not even recipe books for cooking classes; no outlined course of study—each province made out its own tentative course; no very clearly defined objectives; no Filipino teachers trained in this line of work; and very few American teachers who had had such training. There were no home economics buildings and there was nothing much in the way of equipment.

But home economics (under various names) had come to stay, and in spite of difficulties the work made astonishing progress. The central office in Manila gathered the best ideas as they were tried out by the various schools all over the archipelago and organized them and redistributed them.

It might be mentioned here that the public school system of the Philippines is administered from the central office in Manila. However, each

province has its own superintendent and supervisors who manage local school affairs.

The work is still growing, so fast, in fact, that to tell the changes which have been made even during the last few years and those which are anticipated within the next few years, might convey the impression that home economics is in a chaotic state. Not so.

In the primary grades some sewing and a little embroidery and sometimes crochet are still offered to the girls. This is considered advisable because at the present time, especially in remote places, some girls enter school late and a considerable number of them do not continue in the intermediate school. This primary work is modified, of course, to fit particular local needs.

At the present time, in the fifth, sixth, and seventh grades (our school organization has no eighth grade) each girl is required to spend eighty minutes a day on some home economics activity. The studies offered in the grades are cooking, sewing, housekeeping, sanitation, home nursing, infant care, food selection, embroidery or lace-making, and in some places club work suited to the community interests.

About ten years ago home economics was made optional in the high school, and since then the course has been offered in about half of the regular provincial academic high schools. This year courses in it are being opened in some of the rural and agricultural high schools. Considerable expansion in home economics is anticipated in these schools during the next few years.

Very early the feeling developed that there must be a separate building for home economics activities. At present, far more than half of the intermediate schools have a separate home economics building. In some provinces practically every intermediate school has a separate building. A large, well-to-do town sometimes builds a large, pretentious building and equips it with bath and toilet facilities, with attractive furniture in dining room, bedroom, and kitchen, and sometimes with beautiful hardwood furniture in the "sala." Sometimes there is a piano or a victrola. The girls add touches of hominess in the way of cushions, curtains, towels, and other things with simple, appropriate hand work on them. A small town contents itself with a smaller building, but the size does not prevent its being attractive, homelike, and convenient. Sometimes simple furniture is made for it by seventh-grade shop boys in a trade school in the community. Some of this furniture is most attractive because of good workmanship, smooth satiny finish, harmonious lines, and the natural beauty of the wood. In places where there is a

good course in carpentry, boys sometimes put up a home economics building.

But it is in the humbler towns, perhaps, that the home economics building best reflects the interest in this work. In Pura, Tarlac, as a typical case, there was no money to construct a home economics building. The progressive, up-to-date principal felt that this work was not at all what it could be if there were a separate building. When she talked it over with her superintendent and with the town officials, they agreed with her; but there was no money. The "presidente" of the town discussed the matter with some of the parents, and then he called a mass meeting. Yes, everybody wanted the school to have a home economics building, but no one had any money. But shortly after daylight one morning a few days later, two hundred men appeared on the school grounds, each with appropriate building tools and his lunch, and dragging or carrying a bamboo or bunch of rattan or *cogon* (a long coarse grass, which grows wild, as does bamboo). The next day three hundred men came; and the next day the girls moved into their large, comfortable, cool, six-room home economics building—the one shown in the frontispiece.

This spirit reminds one of the Middle West in the days when money was scarce but where a little one-room sod school house was often built almost over night by volunteer hands and a determination that the children of the district should have an education.

Cases like Pura in spirit are by no means uncommon in the Philippines. In one place the people aspired to a larger home economics building than their funds permitted them to build. Nothing daunted, they went right ahead with plans for a larger cement building. (Cement, by the way, resists both termites and typhoons.) Every school boy laid a tax on himself of at least one can of sand or gravel every school day—small boys carried small cans, big boys big cans from the creek up the steep hill to the school yard. In Ibahay, Capiz, there is a splendid two-story home economics building, with six well-equipped rooms above, not including toilet and bath, class room and store rooms below, a porch at back and in front, and a fenced spacious yard on all sides. It was built almost entirely through funds contributed by men from the community who are working in Hawaii or the Pacific states, and by a few students in the States.

No pains are spared to make the work in home economics practical. In the sewing classes, there are virtually no required garments to be made, but there are many that are optional. A girl selects, according

to her tastes or needs, from a group of garments of approximately the same degree of difficulty in construction. On the garment that she makes she may apply various decorative embroidery stitches and designs; or she may trim her dress or underwear with the simple handmade crocheted or cluny edging she learned to make at school and continued as a home project; or, if she prefers, a girl learning embroidery stitches may put her "practice work" on a batiste handkerchief. She will need the handkerchief anyway to carry out the health idea of "a clean handkerchief always at hand" and she will learn embroidery stitches while making it. Her crocheted or cluny edging may go on a doily with a linen centre.

In the food studies a girl learns not only simple scientific food facts, but every effort is exerted to the end that she and possibly her family actually improve the daily diet. In order to introduce or encourage desirable food practices, the teachers of food subjects cooperate with garden teachers, so that they in turn may interest the boys not only in raising a fine new vegetable, but in knowing its value in the diet and possibly something about its preparation for the table, and in learning to eat it. Girls do not take part in school gardening, which is required of boys in certain grades, but they learn the food value of the vegetables growing in the school garden and ways of preparing them for the table. Garden teachers do considerable experimenting in the introduction of new kinds of vegetables, and the cooperation of the home economics classes has a greater value than may appear at first. For example, a garden plot had large, delicious, American turnips, the first ever seen in the community. The home economics teacher herself learned to cook them and then her class cooked and served them to the garden boys. By just such means the teachers of cooking and food selection extend, to a greater or less degree, their influence to the million of boys and girls in the public schools. A constant endeavor is made here, just as in the States, to encourage the school children to eat more leafy and succulent vegetables. As a general rule, the Filipino diet, possibly because of Spanish influence, contains a great amount of meat and uses vegetables for garnishing mainly.

When the situation seems to demand it, the cooking classes serve school lunches. This is done in Manila and in some other places because during intermission children buy cakes, candies, and other sweets—always sweets—from street peddlers or nearby "tiendas." Children usually eat the lunch standing, but teachers are served at tables. When serving lunches is a part of the class activities, great care is taken that this work does not become mere routine for the girls.

Making the sewing patterns and other sewing helps is one of the many very interesting details of the work at the central office. Last year about 120,000 pieces were made and distributed to elementary schools. These patterns, somewhat like the ordinary commercial ones, are designed and perforated in the central office and sold to the schools for the cost of the paper. Accompanying the patterns are "picture guides," really patterns reduced to scale, which contain simple, explicit directions and information. Commercial perforated patterns from the States can be purchased in Manila only, they are expensive and made on cheap paper, and patterns of desirable styles are limited; moreover, if a particular pattern has to be ordered, it takes at least two months to get it.

The patterns from the central office are perforated on linen paper, and in the schools one pattern is used many times to stamp on cheaper paper patterns for personal use. Girls in this way often supply themselves with patterns of garments that they wish to make at school or at home, for themselves or for other members of the family, as regular school work or as home projects. Mothers, too, who are always interested in this work, are often able to secure new and good patterns free from the school.

No less interesting is the designing and perforating of embroidery patterns for almost everything that may be made in fine needlework classes—handkerchiefs, towels, pillow cases, tea sets, tray cloths, aprons, dresses, and the rest. We try to make these designs very simple but pleasing and artistic. Sometimes a design is made for a certain grade and has only certain stitches, while the next design in the series is built on stitches chosen in reference to the design preceding. This is particularly valuable in the case of handkerchiefs, where in making one corner design a girl may learn many embroidery stitches, without having to repeat one stitch until she is tired of it. Lace patterns are also designed and made in large numbers, for use in schools in the provinces.

On the central office sometimes falls also the preparation of textual material, and, truly, this is the work! Our schools use for reference many of the home economics books published in the States; but to meet our needs entirely it is necessary to have something more, or sometimes to have a study organized differently.

Two standardized objective home economics tests, one in sewing, the other in food selection, were prepared during the last two years for the grades and were given to representative schools in practically all of the provinces. This has done much to stimulate interest. A standardized test in foods is now being prepared for the high schools.

During the years of home economics in the Philippines it has shared in the unprecedented progress that the country has made in all educational lines. The work has expanded and gained in popularity and has established itself in spite of early prejudices against it. The University of the Philippines has introduced a course, and many private schools either have introduced courses or are planning to do so. The Philippine Normal School, which gives teacher training on the collegiate level only, has a strong course in home economics. The people are interested in the work and it is expanding faster than teachers can be trained to fill the new positions. The work is intensely interesting to all those engaged in it, and the outlook is most encouraging.

We do all our teaching in English. During my last visit to the States this statement was so often made in answer to questions, that it may be of interest here. So, too, may be the fact that all the home economics teachers, all the provincial supervisors of home economics, and the general home economics supervisors attached to the central office, as well as the assistant chief, are Filipinos.

CORRELATION BETWEEN ENGLISH AND HOME ECONOMICS[1]

LIESETTE J. MCHARRY

University High School, Urbana, Illinois

It was Henry Ward Beecher who said in "Life Thoughts," "Laws and institutions are constantly tending to gravitate." Teachers must appreciate the truth of this statement when they recall the history of even a few of the outstanding movements that have defined the teaching profession of the past twenty-five years. Project method, supervised study, laboratory method, socialized recitation, individual instruction, correlation of subject matter—these and other educational procedures have come into being with a splash, only to gravitate as pebbles into the great rock bed of education where the overpowering social and economic waves have set them to true time. I would not minimize the importance of the "splash." Teachers are better for having absorbed the enthusiasm, the exultation of soul, that comes from venturing into new seas. I would emphasize, however, the gravitation of the so-called "new" movements of education. Teachers are superior for having followed any one of these to rock bed. It is after a "new" movement has left the surface of educational theory and settled down upon the foundation of practice that it becomes most worth while.

As teachers we have heard much about correlation or coordination of the subject matter of our secondary schools. The theory grew, no doubt, out of the conditions that resulted from extreme specialization. As the school of one teacher gave place to the school of many specialized teachers, barriers grew up between different subjects. It was in the hope of breaking these down that educators and administrators became enthusiastic over the idea of correlation of subject matter. Because English is bounded on every side by other subjects and because by virtue of its basic aims—expression and appreciation—it merges into other fields, it has served as the hub of many experiments in correlation.

A study of various guides to periodical literature reveals that during the years 1905–1917 formal plans of coordinating English with other school subjects were inaugurated by a goodly number of schools throughout the United States. In most of these plans, the English teachers drew up definite requirements of form in oral and written expression and

[1] Paper read before the home economics section of the 1928 High School Conference, University of Illinois, Urbana.

placed them in the hands of all the teachers of other subjects. At unexpected times they collected and passed judgment upon samples of work from all the departments. In fact, the English teachers became general supervisors. In some cases students' grades in various subjects were raised because of good English; in other cases grades were lowered because of poor English. In brief, coordination meant making every class an English class. It is quite easy to see that to do this, all teachers must be well trained in English; English teachers must be willing to carry more than their own load; high school principals must have time and inclination to serve as guiding directors. The facts are: Records of appointments committees show that the average teachers of subjects other than English take no more English than is required in their preparation for the teaching profession; English teachers are human; high school principals are busy men. To make every class an English class may have been good theory, but it has not worked out in practice.

Miss Ruth Mead Vose[2] has reported a very careful investigation of experiments in which formal attempts have been made to correlate all high school subject matter with English. She has reached this very definite conclusion: "We find that many of the plans are merely nominal or have frankly been abandoned. This survey of the field of cooperation has shown the general failure of its practice. Few schools have done with it anything worth while. Cicero is perhaps the outstanding example of success; yet the work of that school has not been entirely successful. However, the principles involved in the scheme may be correct even though practice has failed."

Without doubt, the institution of correlation has gravitated. It has settled into its normal place in the great mass of practical educational theory. Teachers and administrators generally believe with Miss Vose that the principles involved in the scheme may be correct, and they are turning their attention to simple, informal ways of helping a child to carry the subject matter learned in one class over into the next one. At present, then, correlation does not mean elaborate and intricate entanglement of subject matter. It does mean the guidance of a child from one class to the next.

What, then, are the ways and means by which we may guide the child from English to home economics and from home economics back to English again?

[2] VOSE, RUTH MEADE. Cooperative Teaching of English in the Secondary Schools. Thesis, University of Illinois, 1925, p. 55.

There are two fundamental steps which the English teacher may take as she leads the child from English to home economics—in fact to all the other departments of high school. The English teacher who takes the child farthest in his journey from class to class is not the one who merely tolerates the subject matter of other departments, but the one who learns to weight it and to place value upon it. The English class is a place to train the child in the expression of his own thoughts and feelings and in the appreciation of the recorded thoughts and feelings of others. In most cases his mature expression will be in fields other than English. It is only the occasional child who will be a journalist or a man of letters. Surely it can be no more difficult for the English teacher to place value upon that great range of subject matter which lies between zeppelins and smothered steaks than it is for the normal boy of today to attach worth to the memorization of twenty-five lines from "Canterbury Tales" or to the writing of a five-hundred word paper upon such a subject as "Romanticism." If there is to be correlation of the true kind, the English teacher must take this first step: she must accept the subject matter of all departments in high school as worthy material upon which to base her teaching of expression and appreciation. Second, the English teacher who takes the child farthest on his journey is the one who brings him to see that there is much specialized information to be learned in each classroom, but that there is no meager amount of general information that carries over from one class to another. For instance, if the teacher who is beginning the study of sentence elements in her grammar work will ask her students to list all the ways in which they have heard the word *elements* used, she will find that she has material from nearly every department in high school out of which she may build a definition of elements. In the same way, ideas of subordination, coordination, modification, unity, and the rest, become clarified in the English classroom when a child recalls their meanings in other fields of work. A boy who knows practically nothing about coordinate clauses is perfectly familiar with the coordinate parts of a piece of physics apparatus. A girl who has no appreciation of a formal essay may be punctiliously informed in regard to every detail of the formal dinner to which she has been introduced in the foods laboratory.

Thus we have traced two essential steps by which the English teacher may lead the child to his home economics class room. Cognizant of the fact that correlation is a dual venture, we proceed to a consideration of possible steps by which the teacher of home economics may pilot the child back to the English room.

First, she must know the way herself. Not until the teacher of home economics takes sincere pride in her own spoken English can there be true correlation between her department and that of English. What can anyone do to inspire a child with the love of the correct and, at the same time, effective use of his mother tongue as long as the teachers whom he respects and even idolizes express no such love? There are entirely too many teachers, English and otherwise, who because of slovenly habits of expression are retarding the entire better English movement. Personally, I could be a bit envious of the opportunities of this group. You have in your laboratories the ideal settings for simple, effective, correct English. Here is a kitchen, beautiful in its colors, its lines, its every expression of convenience and sanitation. Over it all presides the instructor, neat and attractive in her white apron. She directs the class in clear, correct English sentences. There is a possibility that every girl in her laboratory will aspire to a sanitary kitchen, to a white apron, and to a correct form of expression. In another laboratory is an inviting dining table with its carefully laundered linen, its properly placed glass and silver, and its artistically chosen and arranged flowers. In quiet, proper way, the girls of the class find their places at the table while their teacher assumes the rôle of hostess. The setting may be ever so gratifying, the food ever so palatable; but the charm of the meal rests with the hostess whose conversation, while natural and easy, is as attractive as her table appointments. When both the teacher of home economics and the teacher of English polish their own spoken and written English even half as vigorously as the former polishes her silver, they will have progressed far toward their common goal of correlation.

Second, the teacher of home economics should know the English room, the teacher, and the work that she does. This does not mean formal visits and observations through long hours of classroom work, but it does mean informal calls in which one teacher talks confidentially with another in regard to the progress of their individual students and in regard to the nature and requirements of their respective courses. As an outcome of such calls, the home economics teacher should be able to assemble a few definite requirements that her fellow worker would be happy to have her exact of her students. A few such requirements might be listed here:

1. Discourage the "and - - - and" habit in oral work.
2. Demand clear enunciation.

3. Insist upon complete sentence form in written papers.
4. Be vigilant in regard to the agreement of subjects and predicate verbs, the case of pronouns, and the tense forms of such verbs as *go, see, do. He don't, I have went, I seen, I have did, I done* are expressions which no teacher should countenance. To be sure, all children cannot be corrected in the same way; but on such errors as these, they must be be corrected in some way.
5. Insist upon the correct uses of the period and the interrogation point and upon a wide enough use of the comma to make for clear thought.
6. Do your share in the eternal drive for correct spelling. Feel especially responsible for the spelling of technical words peculiar to your own subject matter.
7. Emphasize the logical relation between major and minor points of subject matter. Outlines are of little value if they are nothing more than tabulations of paragraph headings.

Third, the home economics teacher may profitably turn a deaf ear to the many false doctrines that do much to retard correlation. The English teacher does not want her co-workers to teach English. She does not insist that they discount students' grades on the grounds of poor English. She does not wish to shift to the shoulders of others the drudgery of theme work. For some time to come the teaching of English must be the work of the English teacher.

Many of our most treasured virtues begin at home. Correlation begins away from home. It must be reserved for those teachers who have breadth of vision to see beyond their own doors and who have breadth of mind to know that what they are doing is just a little part of the great business of education. It would be impossible to give a complete scheme of correlation that every teacher in this group might adopt full grown. I have tried, however, to outline a few simple beginnings from which each one may develop the peculiar type of correlation which will mean most to her own school. It takes two parties to seal a bargain. If the English and home economics teachers will agree to attain a high standard of perfection in their own spoken English, if they will agree to hold students responsible in one class for general principles and essentials learned in another class, if they will agree to be slow in misjudging each other's motives—if they will agree to these stipulations, they will seal a bargain of no small consequence.

THE EFFECT OF ELECTRICITY ON THE LIFE OF WOMEN IN NORWAY

MATHILDE C. HADER

New York University, New York City

Living in high northern latitudes means, as everybody knows, a hard struggle for existence, and Norway has been no exception in this respect. Nature is there a strong enemy from whom a meagre means of subsistence has to be wrested—the peasant toils with a scanty soil that gets little sunshine, stormy seas face the fisherman during a long winter, and high mountains and long distances make transportation a burdensome task.

And as always, women get their full share of the work. Not only does nature yield less, but people need more—more food, more clothing, more shelter, and these all come within woman's special domain. Moreover, the retardation of the industrial development, due to the lack of coal and to a small supply of iron, has thrown the home back upon its own resources to a far larger extent than in such a country as the United States. In other words, the Norwegian home is still to a considerable extent a productive unit. Many kinds of commodities are manufactured in Norway, and still more imported; but the price is relatively much higher than here, so that commercially manufactured goods, such as canned foods, preserves, crackers, cereals, cured meats, clothing, and many others are much more often beyond the means of the family of average income, than is the case here. But since people want all these things, the domestic arts flourish, and women are kept busy in their homes, while they wistfully read about the easy apartment life in America and the "dolce far niente" of sunny Italy.

The great need for women's labor in the home has tended to keep alive the tradition that "woman's place is in the home," and this adds to her difficulties when she ventures outside it, be she either married or unmarried.

That this tradition is still so strong may surprise many, for, as is well known, the educational opportunities of Norwegian women have during the last fifty years been better than in most other countries, and their legal and political position has likewise been more advanced than elsewhere. One might be led to expect that women had already taken their place beside men in business, professions, science, and politics, but this is not the case to any considerable degree. During the period of women's emancipation in the latter part of the 19th century, they entered into

many vocations previously reserved for men, but never in great numbers as far as higher positions go; and after the first flush of victory there seemed to come a stagnation.

For example, during all the years that Norwegian women have been eligible to the Storting (parliament) only three women have had seats there, and that only as alternates for shorter periods. This is in contrast to the situation in England where until recently women were denied all political rights but where they already have several full-fledged members of Parliament. As regards the world of education, at the university of Oslo there has only been one woman holding a full professorship, while the number of women taking higher degrees is still small.

It has been a puzzling and much discussed question why the development of women's activities has not been quicker, but no satisfactory explanation has been offered. Opponents of "women's rights" have frequently voiced the opinion that women have not lived up to their opportunities.

Can one not, however, point to a very important causal factor, which is mostly overlooked, namely the unusually heavy home responsibilities of the women? Of course, the unmarried women have not felt these so heavily, and it is they who form the great majority of the women working outside the home; but even they have been hampered by tradition, and also by lack of support and understanding from the married women who were still practically cut off from participation in activities outside the home. It is becoming increasingly recognized that an emancipation of women which does not also include the married ones will not lead far; both married and unmarried women will have to face a serious conflict in their life, due to a frustration of part of their possibilities. And where marriage and chance for self-development are so much an either-or proposition as they have been in Norway, the obstacles in the way of making noteworthy cultural contributions would seem to be great.

This was the situation in Norway some fifteen or twenty years ago, when the sudden development in the use of electricity opened up undreamed-of possibilities for the nation, and not least for the women in the home. It offers another striking example of the effect of technical inventions on social progress.

It was the perfection of the dynamo which worked the magic. The countless waterfalls all over the country were suddenly transformed into an immense source of potential wealth. Their value had hitherto been somewhat problematic; to be sure, waterpower had been used to run

many sawmills, and the falls were a great attraction for tourists, but their location was an inconvenience in transportation on the rivers and in the important floating of lumber from the forests down to the harbors. Now this power had become "white coals."

What better could be wished for up in the cold North, where the winter is long and dark and life a struggle against heavy odds, than an abundance of light, heat, and power? It was like getting an Aladdin's lamp!

The stimulus of this to industrial development has been enormous, but even more interesting I find the effect on the home. Within two decades electricity has been introduced into over 70 per cent of the homes, and the annual consumption per capita in the home is 1400 kilowatt hours as compared with perhaps 200 in the United States.

At first the electricity was used in the home only as light, but even that immediately made life a little easier for women; the cumbersome daily process of taking all the lamps to the kitchen for cleaning and refilling had been eliminated.

Next came heat in various forms. The houses must be heated nearly eight months of the year, and that task has always fallen to the women. As furnaces have not been very common in Norway, this has meant the constant care of many stoves, enough, indeed, to take up most of a person's time during a cold snap. Electric stoves have, therefore, been a great help to the housewife; for though wood or coal always is used, in addition, during the coldest part of the year, electricity may do half the work.

But the greatest blessings of all have been the cooking appliances which are in very general use. Besides the usual types of hot-plates and ovens, ranges have been developed which cook the food at low temperature and require very little attention.

The reason why all these appliances are so widely used is the fact that the current is bought at a flat rate. As the waterfalls run all the time, there is little need for saving electricity; the current is accordingly sold at a certain price per kilowatt per year with the right for the subscriber to use it day and night. And this they have quickly learned to do.

It is interesting to note that electricity in the form of power has not been used in the home to the same extent as in America; while the majority of Norwegian homes have light and heat in some form, such things as vacuum cleaners, washing machines, and kitchen motors are comparatively scarce. The explanation is probably that domestic workers are still available to the average family and that it is cheaper to hire a woman to do the laundry than to buy a washing machine. Never-

theless, there is no doubt that in the competition between the two the machine is gaining ground.

The electrification of the home has now reached the stage where, when a new house is being built, the architect is confronted with the problem as to whether a chimney should be included at all, as the heating and the cooking probably will be done entirely by electricity. Most new houses do have a chimney, but often it stands unused. The condition is fast approaching the point where light and heat in single houses in the suburbs, in small towns, and even in the country require as little attention as in the modern apartments of American cities, and this with none of the disadvantages of congested city life.

The effect which this development has had on the life of Norwegian women is difficult to overestimate, because it involves the great majority of the women in all parts of the country. And those who benefit by it are in the first instance the married women who hitherto have carried such heavy burdens.

The first effect has been a great and general increase of leisure. This has not been followed by any marked exodus of married women into industry because there is no great demand for them, electricity not having yet led to any extensive growth in those industries that call for female labor.

One or two actual examples may help to show how the life of women has been influenced.

Some years ago I was with a party on the way to a shooting lodge up in the mountains. We stopped to change horses at a small farm, high up in the valley, above the tree line. Everything pointed to a hard struggle for life; only grass and potatoes grew there; and aside from those, a few cows and goats seemed to be the main assets of the family, in addition to the little grey cottage. In this I pictured to myself the usual sight of a woman standing by a smoky fire-place, striving to keep the fire going under her kettles. But I was wrong! Inside it was neat and clean, and we were met by a woman who gave an impression of leisure and contentment. She offered us coffee (inevitable if you visit a Norwegian farm!) and when we protested, saying it would mean too much work, she pointed with evident pride to a corner where the water was already boiling on an electric hot-plate. Looking round the room, we noticed newspapers and some books, and—more unusual in such a place—many flowering plants, which, we learned, were her great interest in life. To me it was a striking instance of how technical improvements open the way to culture and refinement.

In many cases women have taken a big step out of the home, into a vocation, leaving electricity as a substitute. A relative of mine seems to furnish a good example of this. She lives with her husband and three children in a small village by one of the picturesque "fjords" on the west coast. He is an engineer in a power station which supplies electricity to a large chemical plant, and they are allowed as much electricity for their household as they can use. And they manage to use regularly the fantastic amount of 30 kilowatts a day. Water is heated in abundance, the house is kept comfortably warm, literally by the turning of a switch, clothes are washed and ironed electrically, and their food is cooked in one of the ingenious devices which require practically no attention. The children go to school daily, and as the housework is reduced to a minimum, the mother has chosen the wise course of going with them, holding a position as teacher in the same school—an arrangement which so far has worked out to the satisfaction of everyone concerned.

In another case the wife of a school superintendent is a teacher in the same school. She told me that she had one of the ovens which cook the food on retained heat; every morning, before she went to school, she put the food for dinner in the oven, and found it ready cooked when she came back. "I could not carry on my teaching without it," she said.

Many women have told me similar stories. Always when groups of housewives are talking together, one hears about the wonders which electricity is working in their homes. In most cases, as has been mentioned before, the leisure gained is, of course, not used for doing work outside the home. Such a revolution is not brought about in a decade or two. Instead, many women find themselves in the intermediary stage when avocations fill up the time. I have in mind the women in my little home town; their incomes are usually quite modest, but with one or two children, a servant, and an electrified home their life is indeed one of ease. Outdoor recreation, reading, music, clubs, and perhaps some social work take up most of their time; this suffices them at present, though a certain restlessness is becoming observable.

Every year sees changes. Of great interest is a discussion recently carried on in an Oslo newspaper, that centered around the young married women who continued in their jobs. Even three years ago one hardly heard of such a being in Norway, and now this discussion, extremely heated on both sides, indicates that she is very common. How great a part electricity has played in each of these cases one cannot tell, but seeing the astounding development in the use of it the last fifteen years, and knowing how great were the demands formerly made by the home

on the time and strength of the women, I would risk the guess that it has been a very real one.

"Not being able to see the forest for trees" seems a fitting comment on such an attempt to observe the influence of electricity on Norwegian homes. The details are confusing and sometimes contradictory, and the field is virgin soil as far as actual investigation goes. But seeing it from afar, from this side of the ocean, the picture it presents is clearer to me than when I lived in Norway.

Though we have little measurable knowledge of what is going on, still it is tempting to prophesy. May we not believe that future historians, looking back upon this period in Norway, will find a striking correlation between the electrification of the homes and the growth of active participation on the part of women in the cultural life of the country?

THE COST AND NUTRITIONAL EFFECT OF MAKING AN INSTITUTIONAL DIET PALATABLE[1]

BESSIE BROOKS WEST AND RUTH OKEY

Laboratory of Household Science, University of California, Berkeley

The assumption that the unappetizing character of food prepared in large quantities is inevitable and unrelated to method of cooking and to loss of nutritive value is a quite common one. While recent studies of vitamin stability have given us some reason to question its justification, this questioning has led to little practical alteration in the cooking procedure in most institutional kitchens. The chef may complete his preparation of the noon meal at an early morning hour, keep the food hot on the steam tables for from four to ten hours, and be exhibited by a proud superintendent as a model of efficiency. Hospital kitchens are too often rated as well equipped or otherwise according to the available number of steam-pressure cookers and steam tables. The tasteless, flavorless character of the food in institutional dining rooms is almost a by-word. Computation of the waste resulting from foods uneaten gives startling figures.

What follows is a brief record of the result of a change from such a regimen as that sketched above to one designed to preserve the nutritive values of foods served in one dormitory, housing some fifty girls in a state school for blind children. Before the beginning of the study, all the meals for this institution, that is, for some three hundred children and workers, were planned and prepared by a man chef with six helpers in one main kitchen. The menus were supposedly approved by a school nurse and a medical advisor. They were by no means models of nutritive efficiency, but, on paper at least, they could hardly be held to account for the conditions of gross malnutrition which existed in certain of the children. The type-written menus, however, looked much better than the food as it appeared in the dining room. There was a large preponderance of starchy dishes. Stew was stew, whether it was classed as beef jardinière, Spanish stew, beef creole, French roast, or what not. Vegetables were cooked beyond the stage where any vestige of original flavor remained. White bread, badly made, inedible cakes, and anemic pies appeared all too frequently. Milk was available in abundance, but it was handled in large cans, badly mixed, and consequently reached

[1] Based largely on a thesis submitted by Mrs. West in partial fulfillment of the requirements for the degree of master of arts in the graduate school of the University of California.

most of the children as skimmed milk flavored liberally by the milk can. The indifference with which the children regarded their food was hardly to be wondered at.

Changes in feeding were made in the dormitory in question at the beginning of the second semester of the school year. The building was exceptionally attractive in appearance and was characterized by a home-like atmosphere. The attitude of the girls used for the study was one of satisfaction with the school and of loyalty to the principal. The most enthusiastic cooperation of the principal, the teachers, the helpers in the dormitory, and the girls themselves was evident throughout the entire semester. No change in school program or routine of living was made coincident with the change in feeding.

The plan of the alteration in the feeding was briefly as follows: One sixth, or the pro rata allotment of the supplies for the school, except meat, cereals, and the flour, sugar and other ingredients used for the bread and cake, were taken over for this dormitory. It was necessary, because of the limited help available (the extra work of preparing meals was done by the staff already in the dormitory, without assistance), to have cereals, breadstuffs, and meat dishes sent over from the main kitchen as before. This meant that the original allowances for these foods were not divided pro rata; also that, as a rule, one decidedly unpalatable dish had to be included in each meal. At the beginning of the study it was supposed that the supplies would be inadequate and an initial fund of $150 was made available for such extra supplies as might be considered necessary. As will be seen later, a comparatively small amount of this fund was needed, and the original supplies proved to be far more nearly adequate than had been anticipated.

Meals for this dormitory were planned to meet all the nutritive requirements of the particular group of children in question. In general, this meant that each day's dietary included: One quart of milk, used as a beverage and in cooking; one egg; one or more fruits, with one fresh if possible; two vegetables other than potatoes; one salad; cereal, usually whole grain; one liberal serving of meat; fat in the form of butter or cream; sugar for use on cereal and in desserts.

The most radical changes instituted were: (a) Substitution of vegetables freshly prepared in the dormitory for those previously cooked to the point of destruction of all flavor and vitamins. Cabbage served after ten minutes boiling was a deliciously new experience and was greeted with enthusiasm by girls who had refused to eat the four-hour variety. (b) Increase in the amount of fresh and canned fruit used as

such rather than in pie. For the first two months no oranges were used. After that, through the courtesy of the California Fruit Growers each child was given one orange a day. (c) The introduction of one fresh salad a day, prepared by the girls under the supervision of the home economics teacher, the substitution of a variety of puddings and gelatin desserts for the pies, and an increase in the actual consumption of eggs. (d) Supplementary feedings of milk, cocoa, and in certain cases egg-nog and cod-liver oil, given to a group of fourteen children who were in especially bad condition. (e) Serving done from the dormitory kitchen instead of at the tables because this enabled us in some measure to adjust the servings to the needs of the girls. Overweight children were seated together; underweights, likewise. Milk was limited to one cup per child per meal until one serving of each of the other foods given had been consumed.

The effect of the change in the dietary regimen may be summarized as follows.

Physical Reaction of the Girls. As regards general physical well-being, the records of medical examination previous to the initiation of the study read very much like a summary of the symptoms of incipient vitamin deficiency and general undernutrition. Outstanding characteristics were listlessness, or lack of "pep"; poor muscle tone and often flabby skin; lack of appetite, constipation, low resistance to colds, headaches, insomnia, habit spasms, and a host of the hysterical manifestations attributed by Holt to disorders of nutrition.

Improvement with improved nutrition was easier to observe than to express in numerical terms. The first reaction was manifest in increased appetites and increased interest in food. Meal time was no longer a matter of indifference. The girls showed an increased liking for activity and, with the resulting increase in exercise, better muscle tone and a diminution of nervous symptoms. The general morale improved and with it, incidentally, the tendency to play. Infirmary records showed a very much lower incidence of colds and of the minor illnesses which had meant time lost from school.

The effect on weight and growth was no less striking. At the beginning of the study the majority of the girls were underweight and their weight records for the previous year showed far smaller gains than normal. At the end of four months on the improved dietaries, all but two of the underweight girls showed more than the weight gains for age and height specified by the Baldwin-Wood tables. In the group which was more than 20 per cent underweight at the beginning, the gains ranged from 70

to 923 per cent of the predicted normals and averaged 271 per cent. On the other hand, a group of four girls who were so much overweight that they needed to reduce showed, with improved general physical condition at the end of the period, an average loss which placed them seven per cent nearer the age-height normal.

In addition to weight records, records of standing height, sitting height, and chest circumference and expansion, were made at the beginning and at the end of the study. Because of the short duration of the study, these values are not considered of sufficient significance to include in such a brief summary as the present.

A comparison of the weight gains of these blind girls with those of a group of deaf girls of similar age who were fed from the large kitchen showed generally more favorable gains for the blind children. Such a comparison does not seem entirely fair, however, because of the more healthy outdoor life of the deaf group.

Because some measurements made with pupils of this school had indicated that the malnutrition existing previous to our study was associated with a low alkali reserve, a group of nineteen girls—all of the original fifty who did not either have a history of blood-stream infection or come from families whose religious beliefs were incompatible with scientific observations—were selected for special observation. Three measurements were made, one the latter part of January, one in March, and one in May. "Before breakfast" blood samples were taken under paraffin oil, and the volume per cent of CO_2-carrying capacity was determined by the gasometric method of Van Slyke.[2] Especial care was taken to avoid frightening the girls, who were, on the whole, inclined to regard the trip to the University and the unusually good breakfast which followed as a treat.

In January, four of the girls showed a CO_2-carrying capacity of less than 44 volumes per cent, and 12 of less than 50 per cent. In May, there were no values under 44 per cent and only five under 50 per cent. In all but two cases, there had been some increase in CO_2-carrying capacity. These showed initial values of 54.1 and 54.3 per cent respectively, with apparent decreases of approximately two per cent, that is, within normal range. The average maximal observed increase for the whole group was 4.3 per cent. Two of the girls showed a maximal increase of excess of nine per cent, three were between seven to nine per cent, and four between four and seven per cent.

[2] The analyses of the plasma were made in this laboratory by a fellow of the Child Welfare Research Institute, Miss Margaret Gulick, to whom we are also indebted for valuable assistance in weighing and measuring the children.

The writers wish at the present time merely to record these observations of alkali reserve as an interesting correlary of improved nutritional condition, and to reserve comments upon them until it may be possible to present more data.

The Cost of the Changed Dietary. At the beginning of the term we anticipated that the improved dietary would be more costly than that previously furnished. That this did not prove to be the case was due, we believe, to more intelligent rationing of supplies and planning of meals and to elimination of waste in uneaten food.

Supplies for the year had been purchased before our study was begun. Hence, it was necessary, with the cooperation of the business office, to ration the food. The milk, butter, and cream proved to be adequate as purchased. There were too many canned beans and spinach and not

Food costs in the girl's dormitory and in the other sections of the Institution

	TOTAL EXPENDITURE FOR FOOD	TOTAL COST OF MEALS SERVED	PER CAPITA DAILY COST OF FEEDING PUPILS AND EMPLOYEES
Girls' dormitory, January, February, and March, 1928	$1,214.32	$15,465.00	$0.235
March 31 to May 22, 1928	668.03		
April and May, 1928		9,738.00	0.205
Other sections, January, February, and March, 1928	9,640.00	73,971.00	0.390

enough tomatoes. The amount of meat and sugar bought and consumed was too high. The quality of food purchased was, with a few minor exceptions, of the best; and the quantities not grossly inadequate. The fault in the whole scheme of feeding lay, therefore, in planning and preparation.

A careful accounting of costs of foods transferred to the girls' dormitory storeroom was made by one of the writers (B.B.W.), the costs of the separate foods being taken from the records in the business manager's office. To this was added the cost of the extra foods purchased with outside funds which were considered necessary to make the diet adequate and appetizing. A pro rata allowance was also included for the foods, such as bread, meat, and potatoes, which were served in the girls' dormitory after preparation in the main kitchen. Final costs were figured on foods actually used.

The figures for the institution as a whole were supplied by the business

manager. The figures for the total cost of food for the institution as a whole during April and May were not available because of a change in the personnel of the bookkeeping staff. But, while we are able to vouch for the accuracy of the separate items for the girls' dormitory only, we believe there can be no gross inaccuracies in the calculations made for that period. The difference in costs under the two systems of feeding is strikingly apparent in the figures shown in the accompanying table.

In considering all these figures, it must of course be definitely understood that only where foods are purchased in such large quantities and as advantageously as by the state purchasing agent, is it possible to secure raw food materials at such low prices.

The difference in the costs for the rest of the school and for the girls' dormitory, a difference between thirty-nine cents and twenty-three cents per person per day, calculated to 300 days for 300 persons, would amount to $14,400. This would be sufficient to allow for the salary of a trained dietitian who could furnish specifications for purchasing and supervise the rationing of the food as well as its preparation and serving. And a comfortable margin would be left to provide for any extra help required in the preparation and serving of the food in smaller groups.

In this particular institution, our experience would indicate that one woman cook with one full-time helper could easily take care of a dormitory housing fifty to sixty children. And since the introduction of such a plan throughout the institution would make possible the elimination of all of the staff in the main kitchen except possibly the baker, the additions to the payroll necessary to put the feeding of the entire school upon the same basis as that successfully tried out in this one dormitory would not be excessive.

The kitchen equipment used in the girls' dormitory was, with only a few additions, that provided for the serving rather than the preparation of food. This was by no means an ideal arrangement, but it does show very definitely the possibility of adaptation of old equipment to an arrangement such as this.

Moreover, the most expensive part of the ordinary institutional kitchen outfit, for example, steam tables and steam cookers, is not needed for feeding groups of fifty. From the nutritive standpoint, the heating of vitamin-containing foods in large containers which require a long time for heat penetration is something to be avoided. For both these reasons, the cost of duplication of utensils, extra ranges, and other equipment would be at least partly compensated.

Since our results have indicated so definitely the health value of alteration in an institutional feeding schedule which requires very large quantity cooking and hence the prolonged heating of vitamin-rich foods, it is, of course, of tremendous importance to know the least possible cost at which this alteration can be brought about.

While, in this particular institution, the easiest solution of the problem is probably handling the feeding in smaller units, the writers do not wish to be understood to state that this is the only way to preserve flavor and vitamin values of foods served in large quantities.

What seems fundamentally wrong is the tendency to regard large-quantity cookery as an engineering problem, to be solved mathematically from the point of view of minimum expenditure of labor alone, and without any intelligent appreciation of the effects of prolonged or excessive heating upon flavor and food value.

We believe that it is possible, by working out a time schedule which will avoid the heating of perishable foods in excessively large containers and the unnecessary prolongation of the heating process on steam tables, to serve appetizing, nutritious vegetables, even from the largest institutional kitchens.

Summary. This study would seem to indicate:

1. That the flavorless food resulting from the large-quantity cooking procedure of the type in use in many institutional kitchens at the present time may be a very real etiological factor in malnutrition. The symptoms observed in the children studied have been at least suggestively similar to those given by Sherman and Plimmer as characteristic of incipient vitamin deficiency.

2. That an improvement in nutritional regimen, which consists primarily in handling foods so as to preserve flavor and vitamins, may result in a marked improvement in the general state of health of children. Specific improvements in rate of gain of weight, muscle tone, nervous reaction, and alkali reserve, have been noted.

3. That food so prepared may be available without greater cost than the flavorless, pasty product of the usual institutional regimen provided the routine procedure of the kitchen staff as well as the purchasing of the food and the planning of the meals is under the supervision of a trained dietitian who appreciates the relation of methods of cooking to nutritive value and flavor of food, and that this is due perhaps to the elimination of two sources of waste, the loss of food value in cooking and food uneaten because of lack of palatability.

OPEN FORUM

A School Gift Shop. A year or two ago, the girls in the clothing classes at Empire Junior High School rearranged and decorated a little fitting room off the large sewing laboratory so that it could also be used as a room in which to rest and read. The story of how they studied and experimented with draperies, pictures, and furniture and how pleased they were with the fruit of their labors is a long one. The door of the little room always stood open, and one or two girls were to be found there reading or working quietly every hour of the day.

In the fall of 1928, the little room was converted temporarily into a gift shop, "At the Sign of Ye Silver Thimble," which took its name from one just outside of London. "The Silver Thimble Club" had just been formed with the home economics teacher as director for the purpose of organizing and managing a gift shop whose proceeds should form a fund for the benefit of the home economics department. Part of this fund was to be given or lent to girls in the clothing classes who could not afford to buy materials, and part to buy illustrative material wanted by the department and not provided for in the school budget.

A sign was hung on the laboratory side of the door. The metal bracket and brown board with old English lettering in yellow were made possible through the cooperation of the sheet-metal, wood-work, and art departments. In addition, a thimble, made on a foundation of buckram covered with aluminum foil and put together with a band of brass brads, was hung from the bracket.

It was understood when members joined the club that their dues of twenty-five cents a semester became capital stock. Committees were formed to start work immediately. The ways and means committee planned a "White Elephant Sale" for the third meeting to increase the working capital. Donations were limited to second-hand articles which were clean, in good condition, and useful. No old clothing was accepted except for some old operetta costumes which had already become "white elephants" to the clothing department.

The publicity committee did effective work with posters and home-room announcements, and on the day of the sale the sales committee needed the help of all of the members to handle the crowds. The business closed with a total of twenty-three dollars.

With all this money in the treasury, the work committee reveled in the possibilities of buying "the makings" of gifts to sell, and the shop committee went to work to put the shop in order.

For six weeks the clothing teacher could not tell where her classes left off and the club work began because the members spent all their extra study-hall periods in the clothing laboratory. The usual practical but attractive aprons, children's supper aprons, bibs, bean-bags, and calico dogs were made, not to mention an animal quilt. All kinds of small boxes were covered with fancy paper, decorated with pictures, and shellacked. Other shellacked pictures from magazines were made into portfolios and decorative match boxes. Corn poppers, megaphones, and cookie cutters made in the sheet metal department were added to the store of merchandise. A few imported novelties, such as place cards and foreign post-card reproductions of the old masters donated by the teacher, added to the atmosphere of the shop.

By the week before the Christmas vacation, the ways and means, the publicity, and the shop and work committees had all done their bit. Once more the posters, appealing to girls on one bulletin board, to boys on another, and to teachers on another, and the sign pointing to "At the Sign of Ye Silver Thimble" brought business. On Monday the shop opened for exhibition only. In the four days that followed, thirty dollars' worth of business was done. Each member of the sales committee was on duty one or more periods every day. They took their "sales hints" very seriously and the club sponsor overheard many interesting and amusing instances of suggestive and even high pressure salesmanship.

It is hoped that the club and the gift shop will be permanent organizations of the school. Within the first term of its organization, the benefit fund has aided seven girls who were worthy and appreciative. At the last meeting, a silver thimble was awarded to the girl who had rendered the greatest service to the club.

The enterprise is of value to the girls in many other ways. Altruism, power to organize, good team work, originality in planning, initiative, care of money, application of art to display, ability to work with others, pride of achievement are all called into being in its performance. To earn money for a specific purpose is much more interesting than to see it put into a school fund, even though it is well known that every one eventually profits by the latter. We all like to see immediate results.

G. ESTELLE STEARNS,
Empire Junior High School.
Cleveland, Ohio

Home Economics for Boys. A course in home economics for boys was offered in the Menominee public high school in response to repeated requests from a group of juniors and seniors. The original few recruited others until we had an enrollment of almost thirty. Of course, many of them expected it to be an easy way of earning a credit. Some desired to learn to cook because such knowledge would be useful on their camping trips. Others had summer jobs as assistant cooks on some of the Lake boats that call at Menominee. None of those who enrolled were interested in the relation of food to health. It became our aim and business to include as much dietetics as possible while retaining the interest of the boys with practical cookery. The teacher in charge, Miss Jessie McQueen, was largely responsible for the planning and development of the work.

We began the lessons with the preparation of foods suitable for a simple camp breakfast. Gradually, the attitude of the boys was changed. Pride in edible biscuits or crisp bacon surpassed the desire to flip pancakes or juggle plates. The awkwardness of the boys amazed us. We had to be constantly on the alert to warn them against accidents which any seventh-grade girl would avoid instinctively. We incurred the wrath of the coach when a member of his football team received a bad burn as a result of pouring cold water in hot fat.

As the class continued and the desires and abilities of the boys began to be evident, the work was divided into units.

The first unit was called "Camp Cookery," although, as carried out, it was simple cookery on a meal-planning basis. The boys took great pride in their achievement with biscuits, pancakes, meat, and bread. Their interest in vegetable cookery had to be cultivated. In this unit, the recitation and lecture material included principles of food preparation and elementary dietetics—approached from the standpoint of suitable food for the athlete, foods to build muscle, the high calorific value of candy bars and sundaes, and other points of contact with the daily experience of the boys. A brief study of laundry methods was carried on on in conjunction with the cookery unit. In this we tried to make a virtue of necessity. Boy-like, the members of the class were careless about the appearance of their aprons, although exceedingly particular about soiled or wet dish towels; and so, after the Monday recitation period, the boys washed their own aprons in the department laundry.

The cookery unit was followed by one on the care and repair of clothing. Some study of budgets was combined with this. The boys all purchased account books which were handed in for grading once a week. As all in-

formation was confidential, the boys felt quite free to discuss their expenditures. Many of them earned a large portion of the money for their expenses and were very much concerned with the practical problem of making ends meet. Their interest seemed much greater than that of a similar group of girls.

The clothing discussions comprised a study of materials with regard to such points as wearing quality, ability to hold the shape, whether they would become shiny quickly, the amount and effect of shoddy. Some study was given to suitable colors and lines, especially in application to neckties, golf-hose, hats, and collars. A local tailor gave the boys a valuable talk on materials for men's clothing.

The laboratory work consisted of sewing on buttons, mending socks, pressing suits, and patching. One of the senior boys replaced a torn lining with that from another coat. He was very well pleased with himself and took every available opportunity to exhibit his handiwork to the senior girls in the dressmaking class.

Throughout this course, the boys showed a constant interest in matters of etiquette. We stressed this wherever possible. Many of our students came from homes of little social opportunity, and they felt their lack of social poise. They asked to be corrected and to be taught the forms of behavior in polite society.

This class was essentially an experimental one, and from it we drew certain conclusions. The first was as to the size of the class. The problem of discipline is important as the boys have little appreciation of the standards of the home economics department. Our class was large; and at first the boys seemed to feel that any food, matches, or other desirable property belonged to them. Their interest in eating the food surpassed any desire to learn the rules and reasons of cookery. We made it a point to dismiss from the class any who did not cooperate. For such a laboratory group, a membership of fifteen to twenty is sufficient. In addition to discipline problems, the boys need to be taught many very rudimentary cooking processes. They are not familiar with kitchen procedure and need the frequent attention of the instructor.

The second conclusion was that it is hard to interest the boys in such a course for an entire year. We felt that one semester of work was enough to cover the subject matter that appealed to them. If the cookery unit is given for the fall term, it permits outdoor application of the camp cookery. This unit should cover about two thirds of the term and the clothing and budget unit, the other third.

Those who survived the disciplinary "weeding out" process enjoyed the

work and showed definite interest. Several of them spoke to us of a new appreciation of the work of their mothers in the home. Many said they felt more capable of choosing a suitable meal. These results justify such a series of lessons.

Now that the members of the original group have graduated, we hope to offer a similar course for those of the Senior High School who desire it.

GRACE R. FINUCANE,
Director of Household Arts,
Menominee, Michigan

Institution Management Practice Work. The experiment started in Colorado Springs two years ago by the National Restaurant Association to give college-trained women experience in a commercial restaurant seemed to indicate that it is possible for the college to fill a real need of its students in institution management. Conditions at Ohio State University made it possible to develop a similar plan there last year, and the results show that it was a step toward solving some of the problems of practice work in institution management.

Institution management courses given in the home economics department at Ohio State University include:

Food buying, five hours, first quarter.
Institution management, 1, five hours, first quarter: food preparation, menu planning, equipment, and floor plans.
Institution management, 2, five hours, second quarter: problems of administration, organization, and management.

During the first quarter, the students were allowed to carry only ten hours rather than the usual fifteen to eighteen hours of college work, and the courses on food buying and institution management were combined so that they occupied all of the student's working time.

In starting the arrangement, we had some misgivings, but the plan worked out satisfactorily. We felt that limiting the number of hours a student might carry would possibly reduce the size of the class, but the students seemed to appreciate the opportunity which the new plan afforded, and they were willing to have the credit hours decreased, even though some of them found it necessary to remain in the University an additional quarter. We had no unusual complaints of physical fatigue. The members of one group of girls gained from four to ten and a half pounds in weight; fortunately no one was over weight at the start.

The students were required to apply the preceding year for a place in

the class so that the proper sequence could be planned and the size of the classes could be controlled. From seven to ten students seemed to be the number that could be taken care of to advantage for one quarter.

The girls received a small remuneration, which they appreciated. This consisted of twenty-five dollars a quarter and their lunches.

The practice work involved coming to the cafeteria at eight a.m. five days in the week to prepare the noon meal for an average of two hundred and fifty people a day. The schedule was arranged so that each girl spent from eight to ten days working at each of the stations in the kitchen—those for meats, vegetables, pastry, salads, hot breads, desserts, and drinks. Not all the positions were shifted on the same day, so that there was never a complete break in the organization. One good cook was kept in the kitchen to bridge over any gap, a dining room girl was employed full time, and a pot washer came in for three hours every day. A full-time assistant directed the work. At noon the students served at the counter. We had felt that they might be too tired for this, but decided to try it, and found that the plan was a great success. If the food sold well the girls were happy and proud, and if it did not sell they were puzzled and eager to learn the cause. They got many direct reactions of the guests to the food and incidentally learned many lessons. The girls took a genuine interest in having good, attractive food and appreciated a good-looking counter. Patrons often remarked that the food was better than when we had regularly employed cooks, and the results seemed to us to be as nearly uniform.

We held a daily conference for half an hour after lunch to discuss the problems of the day and to plan the menu for the following day. The kitchen work was finished by three in the afternoon, and at that time an hour for lecture and recitation was scheduled. The usual amount of reading and reports was required in connection with the lectures. The food preparation and serving were regarded as practice work rather than laboratory work for credit. Usually the students spent Saturday morning working on a special problem which had been assigned, or doing work necessary in connection with the courses.

After our experience of last year we see many opportunities for improvement. We feel that this plan does much in vitalizing the problems of food buying, preparation, and serving, and the use of care and arrangement of equipment.

JUNE FINDLEY KENNEDY,
Ohio State University.

EDITORIAL

Plans for the Boston Meeting. The committee on local arrangements for the annual meeting of the American Home Economics Association in Boston, July 1 to 5, reports satisfactory progress, and the program committee likewise. Definite information will reach members with the *Bulletin* about the middle of April.

Miss Agnes Houston Craig, supervisor of home economics in the city schools of Springfield, Massachusetts, has been appointed chairman of the publicity committee and has already organized its work.

It is a satisfaction to announce that the United States Commissioner of Education is calling a conference of supervisors, teacher trainers, and teachers of home economics similar to those in 1927 and 1928. It will take place on Monday, July 1, immediately preceding the meetings of the Association. In fact, the plan is to hold the closing session of the conference jointly with the opening session of the Association on Monday evening and to make it a public meeting at which the speakers will be Dean Justin, president of the American Home Economics Association, and a nationally known representative of the educational world.

The Bureau of Education. Several recent happenings have called the Bureau of Education in the United States Department of the Interior to public attention. Dr. John James Tigert, who had been Commissioner of Education since 1921, resigned last August to become president of the University of Florida; and in December, Dr. William John Cooper, state superintendent of public instruction of California, was appointed to succeed him. The appropriation for the Department for the year 1929–30 includes an additional $225,000 for a special study of secondary schools. Dr. Tigert's annual report for the year ended June 30, 1929, which appeared in January, includes not only a brief review of the work of the Bureau but also a review of conspicuous educational developments during the year, including some of both general and special interest to home economists. Among the former may be cited the recognition of the fact that the rural high school curriculum does not meet the special needs of the majority of rural children, that

character education is receiving more and more attention in city school systems, that the Dalton plan is being increasingly adapted to the platoon system, and that interest in adult education is growing rapidly and that a conspicuous part of it is the subject of parental education. The special paragraphs on home economics education are as follows:

> Among the significant achievements during the past year in public-school home economics are: Universal home economics curriculum building conforming to the life needs of the girls in the elementary, junior, and senior high school; the development of courses on the economic and social relationships of the family; extension of home economics for boys; expansion of child development and parental education courses; the increase in the number of nursery schools, day nurseries, and research centers for the observation and study of preschool children; formation of the Organization of Supervisors and Teachers of Home Economics, which convened for the first time just preceding the meeting of the Department of Superintendence in Boston, Massachusetts, February 24 and 25, 1928; recognition by school authorities that the school lunch room is an important educational factor of the school system; development of scientific home economics tests and measurements; studies concerning the gainful occupations open to girls trained in home economics, why girls elect home economics, status of home economics in certain accredited high schools, intelligence quotients of home economics girls versus those of the girls choosing other academic subjects, grade placement of home economics subjects, and the administration of home economics in the public schools.
>
> Nine regional cooperative studies concerned with the time allotment and home economics as a required subject in junior high schools, researches on the placement of home economics content in junior and senior high schools, and the administration of home economics in our public-school system, etc., were made by city supervisors of home economics.

Home economics studies now being carried on by the Bureau include home economics for boys and men, home economics in the one-room rural schools and consolidated rural districts, and nutrition as taught in the public schools of the nation. General educational surveys include the one of land-grant colleges begun in 1927 and one of Indian educational opportunities in cooperation with the Office of Indian Affairs. Another much desired one would deal with the important but little studied question of the support and financing of schools. This, together with the study of land-grant colleges and the survey of secondary high schools made possible by the special grants, would do much toward completing the accurate picture of the status of public education in the United States which we need if developments are to be wisely guided.

National Sewing Week. The work of the National Costume Art Association in calling special attention to home sewing during the week of April 15 to 20 is worth thinking about by home economists, and not only by those of them who teach or are otherwise immediately concerned with sewing and dress construction, but also by all who have to consider what should be taught in our home economics classes, how clothing budgets should be planned, and how the homemaker can best utilize her time.

Most women realize that some knowledge of making and especially of repairing garments is often a very present help in time of trouble and feel that their daughters should learn at least enough of the subject to choose a suitable wardrobe and keep it in reasonable order. If one happens to be possessed of skill with the needle and shears, it is an art to be cultivated further, not only because it may mean more or better things for the same money, but also because of the personal satisfaction one gets from exercising any special talent. If National Sewing Week helps to make girls and women realize these possibilities, it will perform a real service.

The question of the relative economy of homemade versus ready-made clothing is not a simple one, and if National Sewing Week makes more women and girls think of their own clothing problems in that connection, it will be rendering a still greater service. It is often not an easy matter to judge whether sewing at home is a wise use of a woman's time; it all depends upon how much time she has for it, what she would otherwise do with her time, how easily she does the sewing, and how the things she makes compare in quality (and in many garments this includes a rather intangible element usually referred to as style) with the ones she might have bought ready-made. The article on homemade versus ready-made layettes in the February JOURNAL brought out some of the difficulties of such a comparison. One wishes that more clothing teachers could arrange for their students to study out the "wage" earned by the person who makes various types of garments at home so that they might realize better what kinds, if any, they should give the preference to, and what kinds they should buy ready-made. As a help in judging the final product of home sewing and dressmaking, the Bureau of Home Economics in the United States Department of Agriculture has issued several score cards, among them one for judging women's and children's dresses which has proved successful enough to have been adopted by a leading manufacturer of cotton dress goods and by a large pattern company for their dressmaking contests—contests to which stimulus will undoubtedly

be given by National Sewing Week. It is in the interest of its promoters to have homemade garments look as smart as ready-made ones, and helps for accomplishing this are likely to be a prominent feature of the week—and one which should have genuine educational value.

Standardization of Commercial Dress Patterns. To all women interested in home dressmaking, it is good news that the first steps have been taken toward the adoption of some uniform method of determining the measurements on which patterns of various sizes are based. Readers of the JOURNAL will remember a paper by Miss Ethel Phelps which appeared in January, 1926, and which showed hopeless conflict and confusion in the actual measurements and proportions of patterns designated as the same size. Such a matter is germane to the work of the United States Bureau of Standards, and it recently called a conference of pattern makers and users in New York to consider the question. Since the National Costume Art Association (an organization which is closely affiliated with the National Retail Dry Goods Association and which, as was stated in the preceding editorial, is actively interested in National Sewing Week) is alive to the harm which unreliable pattern sizes do to the cause of home sewing, it took a leading part in the conference. Miss Beulah Blackmore was the official delegate of the American Home Economics Association; Miss Ruth O'Brien of the United States Bureau of Home Economics was another active participant; and representatives from many important retail stores, textile, pattern, and garment manufacturers and a few teachers of clothing were present. Preliminary work had been done by a special committee, and the recommendations presented by Mr. Louis Dempsey of the Butterick Publishing Company and adopted by the conference were, in effect, plans to standardize classifications of patterns. Sections of his statement follow:

> As to the first subject, standardized classifications, by "classifications" we mean the division of patterns into classes, as, for example, patterns for ladies, misses, juniors, girls, children, infants, etc.
>
> As to the second subject, standardization of body measurements, we mean a standard scale of measurements of the average figure for each of the classifications mentioned. These measurements are the actual body measurements and not the measurements either of the patterns or the finished garments made from them. . . .
>
> In other words, there will be standardized body measurements agreed to by all pattern manufacturers. For instance, a figure measuring 36 inches bust

will be considered by all pattern manufacturers to have a 30 inch waist and 39 inch hip, the latter measurement taken several inches below the normal waist line. In the juvenile department, that is, misses, juniors, girls, etc., there will also be a definite standard length of figure taken from the socket bone to the floor. All pattern manufacturers will base their patterns upon this scale of measurements. The pattern manufacturers, however, will make their own decision as to the amount of fullness which they will add to their patterns for any given body measurements. But a pattern of 36 inch bust measure, or of size 16, or of any other size, made by any of the pattern companies which accept these standard measurements, will be correct for a figure of these measurements, whether the pattern be for a frock, a coat, or other garment. In this connection it should be understood that all pattern companies advocate a careful measuring of the figure before buying a pattern. Each pattern will make clear to the consumer that adjustments, such as lengthening or shortening, should be made in the pattern before cutting, so that when the garment is cut and basted and ready for the first try-on it will require only slight adjustments to the individual figure.

In the matter of terminology an interesting change is proposed. We plan to drop the use of the words "age" and "years" where they are used at present and to employ instead the word "size." For example, instead of saying "age 12 years" we shall simply say "size 12." Instead of saying "age 14 years," "size 14," and so on.

The standardization when understood will constitute a "new and useful improvement" in service to all concerned. It will help both the consumer and the saleswomen who wait on her in selecting the proper size in any make of pattern and will result in greater satisfaction in the use of patterns. It is bound to so simplify and encourage dressmaking from patterns that in time it will stimulate and increase the sale of patterns and piecegoods.

This step in the direction of better service to the consumer and better cooperation with the merchant, will be welcomed also by teachers of the dressmaking part of clothing work in our schools and colleges. It will be of interest to home demonstration agents carrying on club projects with women and juniors in each state under the direction of the state colleges. It will be particularly helpful to the instructresses of dressmaking classes operated by merchants and the important sewing machine companies. The Bureau of Home Economics of the Department of Agriculture, where experiments and investigations are continually carried on for purposes of modernizing and broadening the subject matter taught in schools along dressmaking lines, will recognize the importance of this program. Naturally, the standardization of size would eliminate many of the detailed explanations now necessary in the training of young students in the use of the pattern, young students who are to become consumers within a few years and who are now formulating habits that will continue throughout their lives. The standardization will eliminate all

confusion in their minds in regard to sizes, so that their attention can be devoted to "style," "beauty," and "becomingness."

As regards the body measurements proposed, the following paragraph from the agenda of the conference is significant.

> Upon motion duly made and seconded, the conference went on record as recommending a comprehensive and truly scientific study of body measurements to be conducted by some thoroughly competent organization, preferably the Bureau of Home Economics, United States Department of Agriculture.

The recommendations include a provision for the regular yearly revision of the agreement and set January 1, 1930 as the date at which it shall become effective.

The significance of the agreement to home dressmakers was expressed at the conference by Mrs. Mabel Tiffany, director of the Fashion Institute of L. Bamberger & Company, Newark, New Jersey:

> No greater step can be taken than to standardize pattern sizes so the women of America, who desire to do so, will find it easier to clothe themselves.

Legislation for Vocational Education. By the time this reaches its readers, they will probably all know that an amended form of the George Reed Bill for vocational education passed both houses of Congress and was signed by the President. As amended, the bill provides for the further development of vocational education in the states for the fiscal year ending June 30, 1930 the sum of $500,000, and for each year thereafter for four years a sum exceeding by $500,000 the sum of the year before. One-half of this sum is for agricultural education and one-half for home economics education in the states and Hawaii. In addition, $100,000 is appropriated annually for the work of the Federal Board for Vocational Education. Those who have been following the matter will recognize that the amounts named are smaller than in the original bill; moreover, where the original provided that the maximum amount attained at the end of the five-year period should be made available annually thereafter, the bill as passed carried no provision for any funds after the five years. In other words, if the work is to be continued thereafter, new legislation must be introduced.

Another measure introduced on December 11, 1928 by Mr. Reed of New York (H. R. 15,211) provided that instead of the fixed sum of $200,000 being available annually for the work of the Federal Board for Vocational Education, the authorization is given to appropriate such sums as may be necessary for the work of the Board, including salaries,

office expenses, research, and other expenses deemed necessary. This bill was not passed before the adjournment of Congress.

Homemaking and Girl Scouts. As usual, the annual report of the Girl Scouts wears a distinctive dress, this time masquerading under the title "Broadcast from Station 'Girl Scout' with Television Pictures." Mrs. Rippin is the "announcer" (alias national director), and she has succeeded so well in hitting off the essentials of homemaking that the page devoted to "Homemakers" is worth quoting for home economists:

> Girl Scouts are trained to be homemakers—to create a refuge from the world's frets which will be something more than a house filled with furniture. Every woman knows of the myriad rôles that the wife and mother may be called upon to fill in a single day.
>
> The little ministries of the home require that she be cook, laundress, nurse, doctor, teacher, seamstress, milliner, plumber, carpenter, furnace man, gardener, barber, and chauffeur. Girl Scouts are equipped to discharge such tasks with enthusiasm. When a Girl Scout helps a district nurse to bathe babies she not only learns the technique of infant hygiene, but acquires a sense of community responsibility.
>
> Girl Scouts study handicrafts, weaving, painting, and nature lore. The immediate reward is the proficiency badge, but unconsciously these girls are getting a many-sided experience, gaining courage and mother-wit to meet everyday emergencies—a sudden nose-bleed or an unexpected guest. They are laying the foundations for smooth-running, cheerful homes.

A dial on the opposite page shows us at a glance how general is the girls' interest in these things. During 1928 proficiency badges earned by girl scouts included 32,286 in homemaking, 20,112 in health, and 12,306 in handicraft.

It Seems to Them. Note was recently made in these columns of the stimulus given to the sense of humor of the gentlemen of the press by the implication that any household question should be considered worthy of really serious attention—such attention, for example, as is due to anything, big or little, recognized as falling within the magic category of "business." This curious quirk in editorial psychology seems a plausible explanation for several recent write-ups in newspapers and magazines. Take, for example, the use made by the daily press of the story "Points on Sandwich Making" in a recent clip sheet from the United States Department of Agriculture. Its first sentence reads, "If sandwiches are wanted frequently for social occasions try keeping on hand some of the butter fillings that can be made up and kept for several days, suggests the

Bureau of Home Economics of the United States Department of Agriculture," after which it goes on to tell, simple and clearly, how to vary and use these butter fillings in easily-made, attractive sandwiches such as are ordinarily served with afternoon tea or some other beverage in the evening and have for years been a recognized part of a good caterer's stock in trade. The opportunity was irresistible to several editors, as appears in remarks of the *Washington Post:*

> What would we do without the Department of Agriculture? asks the *Philadelphia Inquirer.* One of its recent activities is to disseminate instruction on the making of sandwiches—an art which in these days lacks skilled practitioners. The noble earl for whom this one-time delicacy was named made it from a slice of cold roast beef between two slices of bread. Since then it has taken many shapes and sizes. To some the club sandwich is the highest development of the original; to others the dainty triangular morsels, once common in American bars, and still found on shipboard in the smoking room or lounge at the cocktail hour, make a more delicate appeal to the palate.

After this display of culinary learning (for which the author was not indebted to the release in question) the editorial proceeds:

> The department advocates very thin slices of bread, with filling only on one slice. Nothing is said of lettuce leaves or mayonnaise, and apparently the use of butter is disapproved. Nor is there a warning against the use of hard rolls, split down the middle, with the ham, cheese or what you will, frayed and overlapping the edges. Such sandwiches are unworthy of the honored name they bear. Like some other essentially simple articles of diet, a really good sandwich is hard to get even in the most expensive places—perhaps in them least of all. These official instructions from Washington are not likely, alas, to improve the modern product.

The writer evidently enjoyed himself when he wrote that, and so do we when we read it. The point in question is, would the gentlemen of the *Post* and the *Inquirer* have been so quick to be amused if some trade "institute" had started a campaign to "sell" the public on fancy sandwiches?

Another gentleman who has recently had a perfectly lovely time writing about things within the domain of home economics is Arturo F. Ratti, who tells how "Housekeeping Faces the Stars" in the January *American Mercury.* We want him to know that we had an equally lovely time reading it. It isn't often that the JOURNAL OF HOME ECONOMICS recognizes itself as the fountain head of information for high-brow magazine articles, but our guess (based wholly on the evidence of the article itself,

we being entirely ignorant regarding the gentleman and his qualifications for his present task) is that Mr. Ratti worked up his story in a public library with our last volumes, a few university and college catalogs, and a voluminous note-book as his helps and guides. As for his original inspiration, we suspect it to have been that famous olfactory organ of the journalist which scented out the humorous possibilities of a serious-minded domestic science, and also the iconoclastic possibilities of a satirical treatment of that subject, which made it so eminently suitable for his special magazine. Some of the names of courses and projects that he cites really do seem to show a rather weak sense of humor and proportion on the part of their sponsors in baptism, and we don't see why anyone should be worried at having such shortcomings aired by a little good-natured laughter. What troubles us is to think of the opportunities he wasted. If he'd only come to us we could have told him of so many other amusing things—things that are fundamentally and not just superficially funny. And we should like to have saved him from dragging in things that could appear funny only to a person comfortably ignorant of what he was writing about.

Quite another use has been made of the humorous possibilities of the domestic theme by Mr. Heywood Brown in one of his syndicated columns "It Seems to Me." Listen to what he says regarding the gross exaggeration of the hardships of housekeeping, a subject on which he speaks with the authority of one who has kept house on many occasion and found it a simple and easy matter.

> At the moment I have not done very much about the sweeping or the cleaning or washing of dishes. Such things can wait awhile. It seems to me that women tend to overdo these phases of housekeeping. They complain of the rigors of the task and yet they are fanatical in the performance of the rites. Something of ease and comfort goes out of a room when it is tidied up too often. Still, I think that every parlor should be swept with regularity once every six months whether it needs this attention or not. . . .
>
> There's no point in cleaning up until the necessity to reform is obvious enough to make the job exciting. . . .
>
> Consider, too, the silly system which prevails in the matter of washing dishes. I understand that in many houses this ordeal is undertaken as much as once every day. I have even heard of establishments in which not so much as a single meal is permitted to pass without its sequel of annoying clatter and scrubbing. This is not only inefficient but rude. How do you suppose a husband or a guest feels if the hostess goes out to the kitchen immediately after dinner and begins to wash dishes? I'll tell you. Very often he can hardly resist the temptation to go out and help her. . . .

I prepared three meals for myself and spent not more than fifteen minutes in the kitchen. And it was a satisfying, healthful and well varied menu. The bill of fare was as follows: Breakfast—canned peaches, dry cereal and cream and part of a leg of lamb I found in the icebox. Luncheon—baked beans (cold), canned spinach (cold), leg of lamb and a bouillon cube. I could have made soup out of this last by a simple process of boiling some water, but there's just as much nourishment in chewing it concentrated. Dinner—tomato soup (hot), omelet, fried potatoes, cold meat (it happened to be lamb) and half a grape fruit. Bogey for the preparation of this delightful meal was precisely eight minutes. . . .

As an example of how a masculine point of view of domestic problems can be presented by a well-informed, skilful writer who has exchanged the comic spectacles for those of common sense, we recommend Mr. T. Swann Harding's article, "Twenty Million Women Must be Wrong" in the February *North American Review*.

An Historic Bath-tub. One is tempted to note under the head of household equipment the "latest Franco-American art scandal" about the authenticity of a tub recently sold from the Rodman Wanamaker collection as the one in which Morat was sitting when Charlotte Corday plunged her knife into his breast. As the *New York Herald-Tribune* puts it, either Morat was killed in three different tubs, or some dealers are mistaken.

The news that the original Morat-Corday tub had been sold for $400, brought an explosion of anger and threats of a $1,000,000 libel suit from the curator of the famous Grevin wax-works in Paris, who also possesses the imposing hammered brass tub in which Charlotte Corday killed Morat. At the same time it came to light that Charlotte Corday killed Morat in a hammered brass tub which was destroyed in a fire which swept through Mme. Tussaud's wax-works.

According to the new life of Charlotte Corday by Marie Cher, the revolutionary hero was suffering from a disfiguring and intensely burning form of eczema and at the period of his death was known to spend much of his time sitting in a sulphur bath, a sheet over his shoulders, his head wrapped in a vinegar-soaked handkerchief, and at the same time busily engaged in writing such diatribes as those his political hate and physical discomfort inspired for "*L'Ami du Peuple.*" As for the famous tub itself, the *Herald-Tribune* describes it as follows:

The tub which was used for medical purposes and had nothing to do with modern bathing snobbishness is shaped like a huge brass shoe. It is about five

feet from heel to toe and is four feet high, and has an opening about three feet across to admit the patient, who sits on a stool, stretches out his legs, and and reads or takes it easy. Medicated water is poured in, and is kept warm by a small charcoal stove in the heel.

The Back-seat Habit. In the first issue in which the *Educational Review* appeared in its new form as an integral part of *School and Society*, its editor, Dr. William McAndrew, gave some excellent advice anent teacher's meetings, some of it applicable to other gatherings as well. For example, his remarks about filling the front seats, whose bareness he considers "stupid, unethical, rude, inhospitable and unprofessional." "The back-seat habit is discreditable to the service." He even goes so far as to suggest that, as a condition to their consent to talk at such meetings, speakers elicit from the local committee a promise "to dispose your audience so that they will sit with no empty seats in front of them."

As the *New York Times* recently said, "Chicago has lost much in parting with Dr. McAndrew, but it is worth while to have such a man at large in the country."

RESEARCH

THE EFFECT OF CERTAIN LAUNDRY SOAPS ON SELECTED DRESS GINGHAMS

BESS M. VIEMONT AND LILIAN BAKER

Kansas State Agricultural College, Manhattan

The lack of usable information concerning the effect of laundry soaps on dress ginghams led to the investigation here reported. Three of the most important factors—change in tensile strength, fading, and shrinkage—were studied to establish, if possible, some relations between the deterioration of fabrics and the use of certain white laundry soap solutions, at varying temperatures, and in varying concentrations.

The fabrics chosen for this investigation were two kinds of cotton material suitable for house dresses and children's play clothes—chambray and peter pan ginghams. Three pieces of each were used. The selection of the fabrics was based on color, quality, and weave. Pink, blue, and tan were the colors chosen because they seemed to be the ones whose intensity was most similar. In addition to matching the colors in the ginghams, it seemed desirable to have the number of picks and ends per inch comparable in all the fabrics used. A complete fabric analysis based on the methods of Posselt (1) and Herzfeld (2) was made, and the results recorded so that the materials might be duplicated if further need arose.

To ascertain the most satisfactory procedure for this investigation, it was necessary to consider both commercial laundry methods and technical data regarding soap (3, 4, 5). The soaps used in the study were classified according to the information on making processes given by Johnson (4) and Norris (5).

The soaps used were representative of three types of white cake soaps—a pure soap, a naphtha soap, and a filled soap. A partial analysis of the soaps was made according to the method suggested by the United States Bureau of Standards (6), so that the results of the experiment might be interpreted more intelligently.

It was difficult to determine the most satisfactory temperature and concentration for the soap solutions. Considering the facilities available for this investigation, concentrations of 0.12 per cent and 0.5 per

cent were adopted as representative of high and low values. At these temperatures and concentrations, a treatment of 30 minutes seemed satisfactory and all tests were made accordingly. The soap solution was prepared by shaving the cake into thin strips and mixing thoroughly. Portions were weighed from this mixture and made up to the desired concentration with distilled water.

The treatment with soap was as follows: The fabrics were cut into strips 14 inches long and 7 inches wide. Specimens of each fabric were

TABLE 1

Shrinkage in chambray gingham resulting from various soap treatments, based on yarn count per inch

METHOD OF TREATMENT	PINK CHAMBRAY		BLUE CHAMBRAY		TAN CHAMBRAY	
	Warp	Filling	Warp	Filling	Warp	Filling
	per cent	*per cent*	*per cent*	*per cent*	*per cent*	*per cent*
Distilled water at 30°C.	6.45	0	4.30	0.10	6.56	2.47
Distilled water at 70°C.	5.49	0	4.61	1.79	4.84	0.10
0.12 per cent soap solution at 30°C.						
Soap number 1	5.80	−0.5	2.77	2.05	7.81	3.89
Soap number 2	4.83	1.26	4.61	3.84	6.26	3.89
Soap number 3	5.45	0.25	3.07	2.05	2.50	3.63
0.12 per cent soap solution at 70°C.						
Soap number 1	4.83	0.76	6.15	4.10	6.87	3.63
Soap number 2	8.71	0	4.00	2.56	5.62	4.26
Soap number 3	5.16	1.77	4.00	3.84	7.18	2.59
0.5 per cent soap solution at 30°C.						
Soap number 1	3.54	0.25	5.54	1.79	7.19	2.85
Soap number 2	4.19	0	3.38	1.79	5.31	1.55
Soap number 3	4.83	0.63	4.30	2.30	6.25	4.67
0.5 per cent soap solution at 70°C.						
Soap number 1	4.19	0.50	6.15	3.33	5.93	3.63
Soap number 2	7.41	0.25	7.15	4.10	10.31	3.37
Soap number 3	5.16	1.52	4.00	3.84	7.19	2.59

immersed in a soap solution of the desired concentration and temperature for a period of 30 minutes, being swished vigorously during the last 5 minutes. The fabric was then squeezed and rinsed in three clear waters of the same temperature as that used for the suds bath. To determine the effect of clear water on the fabric, samples of the materials were also washed in distilled water at 30°C. and 70°C. After the last rinsing, the strip was spread out and allowed to become sufficiently dry for ironing. In order to make the stretch in pressing as nearly uniform as possible, all pieces were ironed parallel to the warp threads; a moderately hot iron was used.

The laundered samples were cut in such a manner as to give five pieces with the warp threads running lengthwise and five pieces with the filling yarns running lengthwise. These narrow strips were ravelled to exactly one inch in width, the exact number of yarns was counted and compared with the number in one inch of the original fabric. From the change in the number of yarns per inch it was possible to determine the per cent of shrinkage resulting from the various treatments. Tables 1 and 2 show the per cent in figures which indicate the shrinkage.

TABLE 2

Shrinkage in peter pan ginghams resulting from various soap treatments, based on yarn count per inch

METHOD OF TREATMENT	PINK PETER PAN		BLUE PETER PAN		TAN PETER PAN	
	Warp	Filling	Warp	Filling	Warp	Filling
	per cent	*per cent*	*per cent*	*per cent*	*per cent*	*per cent*
Distilled water at 30°C.	1.84	1.17	6.66	3.06	−1.16	1.63
Distilled water at 70°C.	2.39	2.35	1.59	3.87	1.15	2.85
0.12 per cent soap solution at 30°C.						
Soap number 1	2.37	3.53	7.04	9.57	1.38	4.69
Soap number 2	3.15	2.35	6.81	4.08	−1.15	3.67
Soap number 3	0.78	4.00	5.00	5.10	0.45	2.85
0.12 per cent soap solution at 70°C.						
Soap number 1	1.52	4.23	3.18	5.10	1.15	3.46
Soap number 2	0.26	3.53	7.27	5.61	−0.45	4.28
Soap number 3	1.31	2.58	4.88	3.87	1.38	3.26
0.5 per cent soap solution at 30°C.						
Soap number 1	3.94	2.35	4.09	5.10	1.15	1.42
Soap number 2	1.31	3.40	7.95	5.86	1.72	3.73
Soap number 3	1.58	1.76	3.41	4.28	0.22	3.67
0.5 per cent soap solution at 70°C.						
Soap number 1	3.94	4.70	5.68	4.08	1.84	4.49
Soap number 2	2.63	3.40	6.81	4.08	1.15	4.08
Soap number 3	1.31	2.35	4.09	3.46	0.68	1.83

The strips used in calculating the shrinkage were later used in the tests for tensile strength. They were conditioned in moving air for two hours and then broken on the Scott Tester. By means of the figures showing the moisture regained in room air, the breaking strengths were corrected to standard conditions (7) of 65 per cent humidity at 70°C. Similar tests and corrections were made with samples of the untreated fabrics. The results are given in tables 3 and 4.

For the fading test, the wash water was collected in clear glass bottles and compared with a similar soap solution through which no fabric had been washed.

In summarizing the results of the experiment, it appears that distilled water increased the tensile strength of the fabric over that of the original in both the warp-wise and filling-wise strips. On the whole, the soap treatments had less effect on the filling strips than on the warp strips; however, optimum conditions for laundering could not be determined because of variation in results. In more than half the tests with chambray ginghams, soap number 2 caused less deterioration in the tensile strength than the other two soaps. In 14 out of 24 tests with peter pan

TABLE 3

Breaking strength of chambray ginghams untreated and after 30 minutes treatment with solutions of different laundry soaps of different temperature and concentration

METHOD OF TREATMENT	PINK CHAMBRAY		BLUE CHAMBRAY		TAN CHAMBRAY	
	Warp	Filling	Warp	Filling	Warp	Filling
	pounds	*pounds*	*pounds*	*pounds*	*pounds*	*pounds*
Untreated	51.66	28.40	50.20	27.63	45.77	29.84
Distilled water at 30°C	59.24	39.08	54.32	34.11	49.59	28.64
Distilled water at 70°C	58.23	38.82	51.49	34.89	49.22	36.39
0.12 per cent soap solution at 30°C.						
Soap number 1	38.44	28.90	37.95	26.63	28.97	22.84
Soap number 2	43.10	24.13	37.22	26.03	33.41	27.10
Soap number 3	41.92	25.13	34.86	24.38	30.68	25.68
0.12 per cent soap solution at 70°C.						
Soap number 1	48.33	27.55	39.48	26.99	36.17	28.12
Soap number 2	40.83	27.01	41.08	28.00	35.99	27.39
Soap number 3	41.90	24.14	40.11	24.56	32.00	25.65
0.5 per cent soap solution at 30°C.						
Soap number 1	36.00	22.44	31.94	23.71	30.58	25.93
Soap number 2	41.58	27.41	37.90	27.16	31.34	24.04
Soap number 3	43.06	32.36	36.48	24.15	32.41	25.46
0.5 per cent soap solution at 70°C.						
Soap number 1	41.87	22.82	40.61	25.92	33.80	27.05
Soap number 2	47.02	30.50	41.08	30.03	39.57	29.21
Soap number 3	44.59	26.91	36.78	28.20	36.92	27.17

ginghams, soap number 1 caused less deterioration in the tensile strength than the other soaps; and in a few instances, the tensile strength after treatment was greater than that of the original fabric. In the majority of tests with chambray ginghams, the percentage of shrinkage was greater in the warp yarns while in the case of peter pan ginghams, it was greater in the filling yarns.

As regards fading, in no case was the color noticeably changed. A sufficient number of tests was not made to justify positive statements regarding the optimum temperature and concentration of soap to use

TABLE 4

Breaking strength of peter pan ginghams untreated and after 30 minutes treatment with solutions of different laundry soaps of different temperature and concentration

METHOD OF TREATMENT	PINK PETER PAN		BLUE PETER PAN		TAN PETER PAN	
	Warp	Filling	Warp	Filling	Warp	Filling
	pounds	*pounds*	*pounds*	*pounds*	*pounds*	*pounds*
Untreated	43.89	32.18	38.66	35.47	38.56	26.63
Distilled water at 30°C.	53.81	37.12	41.80	37.80	46.45	34.41
Distilled water at 70°C.	52.36	38.46	45.24	35.59	44.68	32.32
0.12 per cent soap solution at 30°C.						
Soap number 1	44.84	36.10	36.90	34.60	41.14	27.83
Soap number 2	42.02	33.83	36.47	34.12	36.74	27.45
Soap number 3	41.27	31.77	36.50	25.64	37.69	27.71
0.12 per cent soap solution at 70°C.						
Soap number 1	43.55	29.16	36.00	32.84	38.59	25.25
Soap number 2	37.30	32.66	33.70	33.00	38.80	24.30
Soap number 3	42.78	32.79	35.34	32.55	37.60	28.39
0.5 per cent soap solution at 30°C.						
Soap number 1	43.83	36.25	34.36	27.17	41.04	28.08
Soap number 2	39.20	31.60	34.76	24.80	35.60	24.60
Soap number 3	42.90	30.63	36.90	31.90	37.30	26.10
0.5 per cent soap solution at 70°C.						
Soap number 1	44.63	35.27	44.67	30.58	37.59	27.12
Soap number 2	44.31	36.80	36.00	35.65	35.70	26.80
Soap number 3	44.86	34.80	38.96	36.44	37.40	29.87

when laundering colored fabrics. However, a definite method of procedure was established which can be used in other similar studies to determine the best soap solutions to use on colored fabrics.

REFERENCES

1. POSSELT, E. A. Textile Calculations. Third printing. New York: Bragdon, Lord, and Nagle Company, pp. 5, 96, 98–100.
2. HERZVELD, J. Technical Testing of Yarns and Textile Fabrics. Third edition revised. London: Scott Greenwood & Sons, 1920, pp. 59–110.
3. Soap. Bureau of Standards Circular No. 62. Third edition. Washington, D. C.: U. S. Government Printing Office, 1923.
4. JOHNSON, G. H. Textile Fabrics. New York: Harper and Brothers, 1927, Intro. pp. XXIV–XXV, pp. 336, 337, 342, 343, 349–357.
5. PERKINS, W. H. and KIPPING, STANLEY. Organic Chemistry. Philadelphia: J. B. Lippincott Company, 1911, p. 177.
6. GRIFFIN, R. C. Technical Methods of Testing. New York: McGraw-Hill Book Company, 1921, pp. 279–285.
7. American Society for Testing Materials Committee D13 on Textile Materials. Specifications and Methods of Test for Textile Materials. Philadelphia: American Society for Testing Materials, 1925, p. 64.

BOOKS AND PERIODICALS

NEW BOOKS

Art in Home and Clothing. By MABEL B. TRILLING and FLORENCE WILLIAMS. Chicago: J. B. Lippincott Company, 1928, pp. 471, $1.80.

A valuable textbook, well written from the point of view that practical study of art in everyday life will provide a permanent source of enjoyment and establish the habit of applying art principles in daily choices and activities. The photographic illustrations, which include most of those on home decoration, are both helpful and attractive; the reproductions from the drawings intended to clarify certain aspects of the subject, especially clothing, are excellent in plan but not always worthy of the text in appearance.

Manual of the Furniture Arts and Crafts. Compiled by A. P. JOHNSON and MARTA K. SIRONEN. Edited by WM. J. ETTEN. Grand Rapids: A. P. Johnson Company, 1928, pp. 899, black leather, $5.50; red morocco, $7.50.

A handbook prepared by and mainly for the furniture trade, but containing much information of value to individual buyers and students of furniture, both in the technical sections and in the list of furniture collections and the bibliography and glossary.

The Folk Costume Book. By FRANCES H. HAIRE. New York: A. S. Barnes and Company, 1927, pp. 180, $6.00.

A charming collection of pictures and descriptions of the characteristic dress of men and women from various regions, likely to be of use in designing costumes for plays, pageants, and folk dances.

Education Through Manual Activities. By ANNA M. WIECKING. Boston: Ginn and Company, 1928, pp. 351, $1.80.

An experienced teacher of elementary handwork describes the materials, tools, techniques, and purposes of manual activities for kindergarten and primary school use, discusses the relation of such work to the various experiences of the child's every-day life, and suggests methods by which such activities may be administered to bring out their educative values.

The Twenty-Eighth Yearbook of the National Society for the Study of Education: Preschool and Parental Education. Prepared by the Society's Committee: B. T. BALDWIN (deceased), ARNOLD GESELL, PATTY S. HILL, DOUGLAS A. THOM, EDNA N. WHITE, HELEN T. WOOLLEY, and LOIS H. MEEK (Chairman). Edited by GUY MONTROSE WHIPPLE. Bloomington, Illinois: Public School Publishing Company, 1929, pp. 875, cloth, $3.60; paper, $3.00 (plus postage).

An important contribution to the subject, brought together for discussion by the Society at its meeting in Cleveland, Ohio, February, 1929. Of special interest to home economists are the sections on the organization of education for preschool children, including its educational value for parents; on provisions for parental and preparental education; and on methods of educating parents.

Good Health. By IAN S. THOMSON. New York: Longmans, Green and Company, 1929, pp. 122, $1.40.

A book by an English physician and scientist, son of the distinguished Professor J. Arthur Thomson, the purpose of which is "not so much to study the nature and treatment of particular diseases, as to endeavour to form a picture of some different forms of disease, and, in particular, of their causes and origins, and to consider whether, by means of some simple hygienic measures, we may possibly increase our chances of avoiding such diseases." Written for but not down to the layman, with clearness, balance, and common sense.

Physician and Patient. Edited by L. EUGENE EMERSON. Cambridge: Harvard University Press, 1929, pp. 244, $2.50.

A series of nine lectures delivered at the Harvard Medical School by well-known physicians and having as their primary purposes "to set the official seal of approval by the highest authority possible on the idea that a patient is a person, not a test tube in a laboratory, or an aggregation of organs, or a mere machine, and is to be cared for accordingly." Of interest to laymen, especially such lectures as those on "The Significance of Illness," by Austen Fox Riggs; "Human Nature and Its Reaction to Suffering," by Lawrence K. Lunt; "The Care of the Dying," by Alfred Worcester; and "Attention to Personality in Sex Hygiene," by Alfred Worcester.

Group Representation before Congress. By E. PENDLETON HERRING. Baltimore: The Johns Hopkins Press, 1929, pp. 327, $3.00.

A readable discussion of a careful, disinterested, firsthand study of present-day lobbying, its development and varieties, and the essential rôle it now plays in bringing the opinions of special groups to bear upon the course of federal legislation. The summarized program of work of the American Home Economics Association is cited as an illustration of the objects of professional organizations of women, and the functions of the Women's Joint Congressional Committee are described with unusual accuracy. The JOURNAL wishes that the 88,005 given as the membership of the former had been correct and not by 80,000 too large.

Leisure and Its Use. By HERBERT L. MAY and DOROTHY PETGEN. New York: A. S. Barnes and Company, 1928, pp. 268. $2.00.

This study of leisure time activities in the leading countries of Europe is of interest not so much for any suggestions for America as for comparison and for the interpretation of national characteristics through national habits of play.

An Introduction to the Study of Society. An outline of primary factors and fundamental institutions. By FRANK HAMILTON HANKINS. New York: The Macmillan Company, 1928, pp. 760, $4.00.

A work intended to give the student in a beginning college course in sociology the background necessary for the pursuit of advanced courses and at the same time to provide "the same unity and systematic survey of fundamentals which elementary texts in economics give to a neighboring field."

Marriage and the State. Based upon field studies of the present day administration of marriage laws in the United States. By MARY E. RICHMOND and FRED S. HALL. New York: Russell Sage Foundation, 1929, pp. 395, $2.50.

A leading social worker, who was considered an authority on the subject of marriage in the United States, and one of the authors of "American Marriage Laws" here combine to report a careful study of the present situation in the United States and to discuss "what can be done to prevent the life tragedies that now are caused by inadequate laws and their more inadequate administration."

Soap Bubbles. By ELLEN BEERS MCGOWAN. New York: The Macmillan Company, 1929, pp. 248, $0.80.

A well-known writer and teacher on such subjects tells in story form the facts about soap and its uses and effects which children of the elementary school grades are interested in, and in so doing makes skilful use of modern practices and devices to catch and hold their interest.

ABSTRACTS FROM PERIODICALS

CHILD DEVELOPMENT AND PARENTAL EDUCATION

EDUCATIONAL METHODS

How pupils solve problems in arithmetic, WALTER S. MONROE. University of Illinois, *Bureau Educational Research Bull.* **44**, 1929, pp. 31.

The usual assumption that arithmetic offers to a considerable degree the opportunity for reflective thinking in the elementary school and that such training is secured by solving problems in arithmetic is challenged by this study which attempts to determine the actual procedure followed by pupils in attacking problems. Problem set-ups, taken from seventh-grade texts, which involved abstract or concrete statements, simple or technical terminology, or addition of irrelevant data, were given to 9256 pupils in the sixth, seventh, and eighth grades in 41 Illinois cities, the solutions classified and compared. The data indicate that a large proportion of the children do not reason in their attempts to solve arithmetic problems, but perform almost random calculations. Habit, familiarity with the terminology, and absence of irrelevant data largely determine correct solutions. Hence, under present conditions, children do not think reflectively in solving arithmetic problems.

The Child Research Center of Washington, D. C., MANDEL SHERMAN. *Child Health Bull.* **5**, Jan., 6–9 (1929).

Two divisions, a nursery school for 25 children 2 to 3 years of age, and a consultation clinic for problem children from 4 to 10, are used for the Center's experimental investigation of normal and problem children, with emphasis upon the development of the preschool child. A parent education program, a course in child development for undergraduate and graduate students, cooperation with public and private institutions caring for children, individual research by members of the staff, and publication of these results as well as other pertinent matters are included in the program of the center.

Equipment and supplies. *Childhood Ed.* **5**, no. 6 (1929).

This number is devoted to discussions of equipment and supplies, with many photographic illustrations. Titles, authors, and pages are as follows: Modern classroom equipment, HARRIET STILLMAN, 293–296; Nursery school equipment, CHRISTINE M. HEINIG, 302–306; A new nursery-school set-up, ROSE H. ALSCHULER, 307–311; Home-made playthings, LOUISA C. WAGONER, 315–317; Libraries in classrooms, A. J. STODDARD, 319–323.

The later performance of under-age children admitted to school on the basis of mental age, E. A. LINCOLN. *J. Educational Research*, **19**, 22–30 (1929).

Data collected regarding school progress of children admitted to school on the basis of mental age tests, though under chronological age for entrance, show that such children not only maintained average class standing, but showed decided superiority in some phases of work; that the work of children denied entrance on the same basis indicates they would have failed if admitted. No school of the group which tried testing discontinued it. Two results are important: saving school time to the individual child and demonstrating the value of tests and testing.

Measuring musical talent, HAZEL M. STANTON. *Personnel J.* **7**, 286–292 (1928).

The results obtained from the use of the Seashore tests to determine admissions, eliminations, section placements, scholarships, and guidance of students in the Eastman School of Music over a period of years, as here discussed, indicate that such objective methods have real practical value.

L'école maternelle et la famille [The nursery school and the family], ROSE VAJKAI. *Rev. Internationale de l'Enfant* **6**, 821–832 (1928).

From her varied experiences in child

welfare work in Budapest, the author is convinced that the influence of the nursery school is of great help in carrying over to the home new ideals and practises of cleanliness and order. The school equipment should be unpretentious and possible of imitation by the parents in their own homes.

Aptitudes for the study of the sciences, HENRY D. CHATELIER. *Rev. de L'Enseignement Secondaire des Jeunes Filles* Feb. 15, 153–156 (1928).

The belief is advanced that all children can understand and study mathematics and the physical sciences to advantage. The difficulties frequently met with result from, first, failure to recognize that a knowledge of science, unlike literature, must be built upon rudimentary principles each of which must be comprehended and mastered before passing to the next; second, that science teaching must not be attempted before the child can understand abstract ideas, seldom before the child is 10, always by the age of 14; third, poor methods of teaching which, instead of emphasizing essentials, drowns them in confusing and uninteresting details. These difficulties are thus seen to arise not from the inabilities of the children, but from badly prepared teachers.

HABIT FORMATION AND BEHAVIOR PROBLEMS

Behavior difficulties in children associated with birth trauma, P. L. SCHROEDER. *J. Am. Med. Assoc'n* 92, 100–104 (1929).

A comparative study of 146 children with infantile birth palsy and 79 children with signs of cerebral injury at the time of birth, selected from 5,000 children referred to a child guidance clinic because of behavior problems. The average age was 9 years for boys and 7 years for girls. Tabulations of types of delinquencies and distribution of intelligence quotients show much higher delinquency in the birth injured, and decidedly lower mental level in the birth palsied, 60 per cent of whom were not in school. High distractibility, emotional instability, and sleep restlessness were marked in both groups, but the number and frequency of personality difficulties is greater in the birth injured. A larger proportion of each of these groups come from self-supporting families than was the case for the clinic as a whole, which appears to refute the usual conclusion that low-grade intelligence comes from poor stock. The author concludes that difficult labor may bring about mental retardation which is shown by characteristic distractibility and hyperactivity though no behavior problem is specific; that cerebral birth injuries which do not result in palsies show the same characteristics as cerebral birth palsies, and when characterized by distractibility and hyperactivity should be classified as the result of birth trauma; that the differences in behavior that occur in this group are largely explained by the absence of orthopedic handicap.

Studies in child personality. I. A study of the language of kindergarten children, HAROLD RUGG, LOUISE KRUEGER, ARENSA LONDERGAARD. *J. Educational Psychol.* 20, 1–18 (1929).

The problems, psychological theory, and chief techniques are presented of a series of studies of child personality, of which this preliminary analysis of the predominant traits of kindergarten children as revealed by their language is the first. The technique involves a verbatim record of everything the child says and does, secured by two trained and experienced persons during 15-minute periods in outdoor play, word period, and luncheon discussion, on different days scattered over eleven weeks. Twenty-seven children from 4 years to 6 years 4 months of age were studied and the 3,125 remarks recorded, analysed, and evaluated are considered an adequate sample from which to deduce the traits of the kindergarten child. He is found to be "essentially self-assertive, a linguistic experimentalist, revealing but slight intellectual curiosity and little interest or ability in more than the simplest forms of perceptual thinking."

The preschool child. The habit of a normal appetite, ETHEL KAWIN. *Welfare Mag.* 19, 832–837 (1928).

A discussion of the causes and treatment of inadequate and capricious food habits.

HABIT TRAINING AND BEHAVIOR PROBLEMS

Habit training for the preschool child, W. H. PYLE, *Am. Childhood* **14**, Jan. 15–18, 59–61 (1929).

Desirable habits for preschool children with regard to courtesy, behavior at table, speech, health, orderliness, play, and ethics are listed and the methods by which they may be established at the proper time are discussed.

Enuresis in children, HARRY BAKWIN. *Archives Pediatrics* **45**, 664–672 (1928).

Case histories are given to illustrate the three groups into which cases of "functional" enuresis may be divided: (1) those due to irritable bladder, in which frequency and urgency are pronounced and in which treatment with large doses of belladonna is indicated; (2) those dependent on a psychological maladjustment, as when the child feels neglected and wets the bed to attract attention and to avenge himself upon his parents, in which treatment consists of adjustment of the environment, suggestion, and sedatives; (3) those due to inadequate training as seen in careless, slovenly, hyposensitive children, where proper training is indicated.

Behavior problems in children under three years of age. Their recognition, treatment, and prevention, MARGARET E. FRIES. *Archives Pediatrics* **45**, 653–663 (1928).

"It is urged that the family physician and pediatrician work along the lines of preventive mental hygiene, as they are now working in preventive medicine in children. Four cases from a pediatric practise were reported. They demonstrate how necessary it is to start preventive mental hygiene with infants, since the formation of the pattern of life commences at infancy. Once it is established, it may take months to correct. It seems as if preventive mental hygiene, including preventive measures and the treatment of early cases in infancy, produces better results than the correction of such cases in later years of life."

Reading disabilities in relation to maladjustment, PHYLLIS BLANCHARD. *Ment. Hyg.* **12**, 772–788 (1928).

When reading disability is 25 per cent below chronological and mental ages and 2 or 3 years below school grade, it is shown by clinical studies to interfere with educational adjustment and to produce behavior difficulties. The varied causes of reading disabilities in children of average and superior intelligence are discussed, with the conclusion that they are often unrecognized, being confused with mental retardation or deficiency; that where reading disability persists, it leads to school failure and a sense of inferiority and, unless compensated for, results in personality and behavior deviations, usually mild, as daydreaming, oversensitiveness, or lack of interest; that even if the feeling of inferiority is compensated for, the educational malajustment persists and may lead to vocational maladjustments; that group teaching is inadequate and special are methods necessary; that common causes are undiscovered vision defects, emotional conditioning in early school life, inadequate teaching, or changes of method during the acquision of fundamental skills; that correction usually results in better educational adjustment, followed by the disappearance of behavior deviations.

The very young offender, R. G. GORDON. *Rev. Intern. de l'Enfant* **6**, 758–766 (1928).

A report of preventive work with young children who present behavior difficulties, as carried out in Bath, England, through an informal clinic where cases are diagnosed, treatment outlined, and follow-up work directed. The chief causative agencies are found to be disease, mental reaction to certain situations, and bad homes or other social factors. A dozen illustrative case histories justify the method used and emphasize the need for proper environment.

The determination of the antiscorbutic value of foodstuffs by Höjer's method, M. GOETTSCH. *Quart. J. Pharm.* **1**, 168–177 (1928).

A comparison of the usual method of

determining the vitamin C content of foods with the shorter method of Höjer (See J. HOME ECON. 19, 468, 1927) consisting of the examination of cross sections of the incisor teeth of guinea pigs killed after from 10 to 14 days on the experimental diet, has led to the conclusion that the latter is reliable for determining the minimum dosage for complete protection but not for estimating the relative value of insufficient amounts of the vitamin. The advantages in the new method are the saving of time and the resulting lessening of danger of death from other causes than scurvy. The details of the technique of the Höjer method are described in an appendix by K. M. Key.

The problem of insurance in dependent families, MAURICE TAYLOR. *Jewish Soc. Service Quarterly* 5, (1928).

In budgeting the dependent family, attention in the past has been centered on the items food, clothing, and housing. There have been few criteria to guide in setting up standards for fuel and light, recreation, health, household furnishngs, insurance, etc. The special problem of the author of these two papers is to work out the principles that should determine the amount, if any, to be spent for insurance by dependent families. Incidental to this, he analyses the motives that lead families to buy insurance, the amount spent for this purpose by both dependent and non-dependent families, and the advantages and disadvantages of various types of insurance policies for the two groups. The motives for the purchase of insurance he classifies as (a) protection, including "burial insurance," (b) savings, (c) emulation, or doing what one's neighbors do, (d) salesmanship, and (e) desire for the nursing service provided by some companies.

The author concludes that "there is grave doubt as to the place of insurance in the budget of a dependent family." "While one would encourage a certain amount to be set aside for savings, which would include the item of insurance, in the budget of the non-dependent family, such counsel cannot logically be given the dependent family whose income by definition is insufficient to meet present needs." "The dependent family has no right to save" or to use public funds for this purpose. Proceeding on this principle, the author concludes that the only policy the dependent family should be permitted to maintain is straight life, which gives protection but no savings. No policies should be held on children or non-income-producing adults, but only on those persons whose death would decrease the income or increase the cost of maintenance of the family.

MENTAL HYGIENE

Parent and child—a partnership, BERNARD GLUECK. *Child Study* 6, 79–81 (1929).

Confining discussion to the psychological relationship between parent and child, it is shown that parents, through their own healthy adjustments, create a social-psychological setting for normal development of the child which gives him a sense of security, an opportunity to develop independence and initiative and to achieve normal love outlets.

Through the eyes of a child, FRANCES G. WICKES. *Child Study* 6, 82–84 (1929).

Since each individual sees the world from a particular point of view, a danger may arise in the child's development if the parent forces upon him his own preconceptions, or by over-protection leaves the child afraid to go out to meet new conditions and the problems incident to normal living, or creates tension by his own over-anxiety for the child's moral disturbances which are inherent in the growing up process.

Concerning adopted children, JESSIE TAFT. *Child Study* 6, 85–87 (1929).

"Successful adoption demands the adjustment of the adopting parent perhaps even more urgently than of the adopted child; at its best, it offers to both a satisfying substitute for the normal ties of which they have been deprived.

The coming-of-age of parent-child relationships, ERNEST R. GROVES. *Child Study* 6, 88–89 (1929).

The grown-up child looks critically upon his parents' training, traditions, and habits,

albeit with tolerance, fairness, and affection, and evaluates them by his own standards. He often conceals his own conduct to protect his parents from knowledge of the new code so at variance with the old. To bring about a sympathetic understanding, parents must be educated to a new point of view, after which more rational mores may be built up by men and women, working unemotionally, even scientifically.

Parents who rob their children of responsibility, GARRY C. MYERS. *Child Welfare* **23,** 307–310 (1929).

One of a series of articles upon problem parents, in which the importance of giving the child responsibility, opportunity to work alone, to speak for himself, to plan, choose, decide, to carry through and to stand by and experience the consequences, is clearly shown, as well as the temptation common to parents to deprive him of these opportunities.

Mental-hygiene factors in parenthood and parental relationships, GEORGE H. PRESTON. *Ment. Hyg.* **12,** 751–760 (1928).

Two sets of conditions affect parent-child relationships: (1) obvious relations of everyday life which enter into the technic of child training, as training in eating, sleeping, recreations, temper tantrums, school forcing, etc.; (2) intangible, subsurface influences in the child-parent-home situation. The second factors are considered in detail. First, it is necessary to understand the drives which motivate the child in the adjustment he makes, as when he must advance from infant dependence to adult independence. Here the parent who is omnipresent and infallible may prevent the child from facing and solving his difficulties and thus prevent his development. Moreover, the parent who has not achieved a grown-up attitude himself cannot train his child to have one. The infant is rightfully the center of the picture, but as he becomes a child he must find his place in the rest of the world without developing complexes as of inferiority, ego-inflation, etc. This important adjustment determines largely his adult behavior. The parent must not force the child too early and cruelly from his place in the sun, nor prolong his stay there unduly. Family training, standards, and ideals are more important in the individual's adjustment in interhuman relationships than any special factor in the individual's personal equipment.

Mental hygiene in the public schools, IRA S. WILE. *Ment. Hyg.* **13,** 70–80 (1929).

Mental hygiene, "the science and art of preserving mental health and preventing mental inadequacy," is inherent in every problem of education. The school must recognize and provide for individual differences both in the emotional and in the intellectual make-up. Indeed, social qualities and relationships, so essential to successful living, are more dependent upon the former than the latter. A program for the development of mental hygiene in the public school system would provide normal school training in the psychological evolution of children, their types and modes of reaction, the appreciation and utilization of mental hygiene principles, careful selection and placement of teachers, with help in the solution of their personality difficulties, a special ungraded class under expert teachers for entering pupils, with examinations into physical condition, intelligence status, emotional reactions, and social tendencies before school placement, a visiting teacher and an adjustment clinic.

PHYSICAL DEVELOPMENT

Malden studies on health education and growth, C. E. TURNER. *Am. J. Public Health* **18,** 1217–1230. (1928).

A statistical study is reported of the growth records kept over a period of 20 months for 273 children under an organized health education program in Malden, Massachusetts, and 202 children in a comparable control group without special health training, with the conclusion that "the rate of gain in both height and weight for the children receiving health education was measurably and significantly greater than for the children in the control group." In discussing the data, particularly individual cases

the fallacy is pointed out of emphasizing only the gain in weight in measuring the success of a school health training program. The corresponding rapid gain in height left many of the children still underweight. Seasonal variations in underweight and wide fluctuations from time to time in the same children were evident.

The relation between malnutrition and nervousness, MAX SEHAM and GRETE SEHAM. *Am. J. Diseases Children* **37**, 1–38 (1929).

The authors direct attention to the functional disturbances, over-activity, fatigue, and restlessness present in undernutrition in the belief that the usual mechanistic point of view in medical thought and practice overlooks these important factors and tends to overvalue weight-height indexes, which the authors feel should be used as aids but not as diagnostic standards of nutrition. Data are presented from experiments with rats which show that activity is markedly increased when malnutrition is produced, and that it disappears with return to an adequate diet, and which give strong evidence of a positive relation between activity and loss of weight. From the results of a questionnaire (given in detail) into the efficiency and habits of living of 100 normal and 100 malnourished children, it is shown that undernourished children have poorer health habits and only one third the efficiency of normal children and exhibit marked nervousness and fatigue. Thus clinical observations bear out the evidence of experimental work that poor nutrition and excessive activity go together. As a therapeutic measure, a forced-feeding-rest-cure for malnutrition is advised, to be based on increase in both quantity and quality of food, with attention to such psychological factors as palatability, texture, color, and temperature, and to such emotional factors as worry, anger, fear; complete rest in bed for 7 to 10 days; and special training in relaxation. Cases reported show reduction and improvement in the nervous symptoms, increased functional capacity, and marked gain in weight.

A community child health study, CHARLES A. WILSON. *Child Health Bull.* **5**, Jan., 10–14 (1929).

A progress report of the community study undertaken by the Merrill-Palmer School in 1924 at Grosse Ile, a township of 6,000 acres, supporting an urban population of 1800 in a rural community, as a part of its investigation of child development, pre-parental and parental education. Thanks to active cooperation within the community and to trained and qualified field workers, the work has gone forward as an integral part of the community program. A survey of housing, of the sanitary and economic conditions of the families, and of recreational and educational opportunities, and a continuous epidemiological record have been made. Records of 150 families and of nearly 500 children for whom histories, dietary habits, psychological, medical, dental, visual, and auditory examinations have been made, together with group and individual mental tests and quarterly height-weight measurements. Some significant nutritional data, are given representative of the information obtained. Such studies of the environmental factors which influence the physical and mental development of the child are invaluable contributions to our meager understanding of the subject.

Posture, health, and efficiency, FRITZ B. TALBOT. *Public Health Nurse* **21**, 8–12 (1929).

"Whether or not malnutrition is the primary cause of poor mechanical use of the body and fatigue, or whether poor posture is the initial offender, the fact remains that correction of postural abnormalities usually breaks the vicious circle of this triad. Nothing fundamental can be accomplished, however, if fatigue is not eliminated."

H. R. H.

FOOD AND NUTRITION

Stimulation of growth for school children by small supplementary feedings, A. F. MORGAN and L. WARREN. *Am. J. Diseases Children* **36,** 972–978 (1928).

The school selected for this study was one in which all the children were of a low economic status and presumably getting insufficient food at home. The three supplementary lunches given to three comparable groups of from 40 to 50 children each for a period of ten weeks consisted of ½ pint of pasteurized whole milk, one large orange, and two soda crackers with sugar filling, the three materials furnishing 160, 80, and 125 calories respectively. At the beginning of the experiment about half of the children in each group were more than 7 per cent underweight for height and age as judged by the Baldwin-Wood standards, while in the control group receiving no supplementary feeding there were only 3 children who were more than 7 per cent underweight.

The average percentages of the expected gains for the four groups were those receiving milk 104, orange 76, crackers 102, and no supplement 22 per cent, suggesting that the greatest needs of these children were for extra calories. It is recommended that the selection of food for supplementary school lunches be made only after careful consideration of the prevailing home conditions and preferably after a preliminary study, such as the one reported, of various foods.

Metabolism of undernourished children. VI. Caloric balance, C. C. WANG, M. FRANK, and M. KAUCHER. *Am. J. Diseases Children* **36,** 979–988 (1928).

Following the same general plan as in the earlier studies of the series (*Am. J. Diseases Children*, **35,** 968-973, 1928) the authors have determined the caloric balance of 10 normal and 26 undernourished children, most of whom had served as subjects in the previous studies. The report includes data on 52 series of determinations, with additional calculations of the ratio between weight of feces and caloric balance and between the caloric intake per kilogram body weight and the calories utilized in excess of the basal requirements as calculated from the average daily gains in weight.

No differences could be detected between the normal and underweight children in the power to absorb food materials or in the caloric utilization. The actual caloric utilization varied directly with the caloric intake, the ratio between the two being constant at 1.09. The percentage utilization was entirely independent of the fecal weight or the actual loss of heat either in the feces alone or in feces and urine combined.

Metabolism of undernourished children. VII. Effect of high and low protein diets on the nitrogen and caloric balance of undernourished children, C. C. WANG, J. E. HAWKS, and M. KAUCHER. *Am. J. Diseases Children* **36,** 1161–1172 (1928).

In this continuation of the foregoing studies, two series of metabolism experiments, one on a relatively high and the other a relatively low protein diet, were conducted on 8 normal and 9 underweight children from 4 to 12 years of age. On both diets the percentage utilization of calories fell within the range reported in the previous study but was slightly higher on the low protein than on the high protein diet. The percentage retention of nitrogen was about the same for normal and undernourished children on the high protein, but higher for the undernourished than the normal children on the low protein diet. The nitrogen storage per kilogram of body weight was twice as high for the undernourished children on the high as on the low protein diet. Among all the children, but particularly among the undernourished, the gains in weight were much greater on the high than on the low protein diet.

The authors conclude that a high protein diet (as much as 4 grams of protein per kilogram of body weight per day) is especially beneficial for underweight children and suggest that the beneficial effects of the addition of milk to the diet of the undernourished child are due in large part to the increase in the quantity of protein of excellent quality.

Studies on basal and resting metabolism after radiation with ultra-violet light. I. The effect of ultra-violet radiation on the resting metabolism of birds, E. CROFTS. II. The effect of ultra-violet radiation on the basal metabolism of human subjects, E. CROFTS. III. The effect of ultra-violet radiation on the resting metabolism of normal rabbits, M. HARDY. *Am. J. Hyg.* **8**, 1014–1019, 1020–1023, 1024–1029 (1928).

In the first of these studies the exposure of canaries to relatively high doses of ultra-violet radiation led uniformly to a drop in metabolism followed after a time by a rise to higher than normal levels. Daily radiations of lower intensity resulted in a lowering of the metabolism immediately after the exposure but with no subsequent rise to higher than normal levels.

In the second study, six Goucher College students served as subjects. No appreciable effect on basal metabolism could be observed following radiation in either light or heavy doses.

In the third study, rabbits were used but with no evidence of any effect upon metabolism of ultra-violet radiation in either single or repeated doses.

Lactose metabolism in women, O. WATKINS. *J. Biol. Chem.* **80**, 33–66 (1928).

An extensive series of observations on lactose excretion in normal, pregnant, and lactating women is reported with the conclusion that certain peculiarities in lactose metabolism are associated with sexual activities in women. A sudden and marked increase in lactose excretion occurs in the final stages of pregnancy, followed after delivery by an immediate drop to low levels and then by marked fluctuations during the first week of lactation. Menstruation and pregnancy appeared to increase the tolerance of most women to ingested lactose, but during lactation the tolerance was normal.

Chemistry and the food industries. *Indus. Eng. Chem.* **20**, 1286–1327 (1928).

This collection of fourteen papers on the relationship of chemistry to various food industries and food regulation constituted a symposium held at the seventy-sixth meeting of the American Chemical Society at Swampscott, Massachusetts, September 14, 1928. The industries discussed included canning, beverage, baking, cocoa and chocolate, jam and jelly, citrus products, flavoring extract, shortening, dairy, spice, breakfast food, milling, and confectionery.

The effect of hydrogen ion concentration upon adsorption of the active factors of vitamin B complex by fuller's earth, W. D. SALMON, N. B. GUERRANT, and I. M. HAYS. *J. Biol. Chem.* **80**, 91–102 (1928).

Included in this report of an elaborate investigation of the relative effect of H-ion concentration on the adsorption of vitamins F and G (B-P and P-P in the terminology followed by the authors) is a description of the method of preparing an alcoholic extract of white corn which serves as a convenient source of vitamin F free from vitamin G. Although the H-ion concentration of the solution was found to determine to a large extent the efficiency of the adsorption of either vitamin F or G by fuller's earth, the effect was quite different with the two factors. The maximum adsorption of vitamin F was in the zone between pH 3 and pH 5.5 with the optimal point at pH 4. With increased alkalinity, the adsorption diminished rapidly, becoming negligible at pH 9. The maximum adsorption of vitamin G occurred at the highest acidity tested, pH 0.08, with a gradual decrease to pH 6.3, beyond which it remained constant to about pH 12.07, the most alkaline solution tested. The extent of adsorption was much greater for vitamin F than for vitamin G.

S. L. S.

HOUSEHOLD EQUIPMENT AND MANAGEMENT

Neue Schul- und Lehrküchen [New school and teaching kitchens], GRETE SCHUTTE-LIHOTSKY. *Blätter für Lebenswirtschaft und Lebensunterricht*, No. 4, 98–102 (1928).

New trends in planning and equipping food laboratories in Austrian and German public schools are discussed. The division of a laboratory into complete working units, resembling private kitchens, is recommended, and the principle is laid down that the equipment of them should not differ from that found in ordinary homes. More modern and elaborate equipment may be placed outside of kitchen units, and students given opportunity to use it there.

Die Deckelheizung elektrischer Kochgeräte [Heating by means of the cover of electric cooking utensils], F. BIEHLING. *Elektrotechnische Zeitschrift* No. 42, 1549 (1928).

Food is cooked in most ovens by heat coming from top and bottom as radiant and convected heat; and as the food fills only a small part of the oven, there is much waste of heat. A new type of electric cooker (shown in illustrations) for baking and frying has been put on the market, which introduces a new principle in that the food fills the whole container and the heat comes from elements built into the cover. The arrangement seems physically incorrect, but experiments (described in detail) gave good results for baking bread and cakes, frying, broiling, and cooking meat and vegetable stew which contained a little liquid. In cooking liquid foods, heating from below is the only correct method. Further experiments may prove greater economy of this new method.

Der Kleinkocher im Haushalt [Small cooker in the household], WAGENER, *Wärmewirtschaftliche Nachrichten* No. 10, 147–149 (1928).

This article deals with the efficiency and cost of operation of various cookers; compares the time consumed by each in heating water from 10°C. to 100°C.; and discusses the influence of the escape of steam, the regulation and size of the utensil, and the material used in the construction of gas cookers.

Les meilleures conditions techniques du lavage de la vaisselle [The best technical conditions for washing dishes]. *Recherches et Inventions* June, 235–239 (1928).

Experiments were carried out to determine the best temperature for washing dishes in a specially constructed apparatus. This was found to be approximately 55°C. (130°F.), not lower than 45°C. (113°F.), and in no case higher than 65°C (149°F.). One-half per cent soap solution gave the best results, but ¼ per cent had nearly the same effect.

District heating in Germany. *Domestic Eng.*, **125**, Dec. 15, 20–22, 74 (1928).

A district heating service in Wiesbaden supplies forced hot water for heating and hot water for domestic use to five separate groups of houses from a central heating plant. Diagrams and photographs with details of the set-up are given here and note is made of certain advantages which such a system has over one with steam.

Novel advantages of district heating plant in Dutch homes. *Domestic Eng.*, **125**, Nov. 3, 35, 37 (1928).

A hot water heating plant at Groningen is described which supplies 93 homes of 6 to 14 rooms each, and a bathing and swimming house. The expense involved is distributed according to the size of the house, with a minimum which varies with the temperature of the month, plus the charge for the excess shown by the meter.

An application of Illinois Master Plumbers' insulation data, CLARK KEELER. *Domestic Eng.*, **125**, Nov. 17, 20–22, 66, 68 (1928).

Three types of insulation, quilts, sheets, and fills, and their utilization in house construction are discussed and data are given on the cost of insulation in a brick residence and the saving which resulted from the smaller gas boiler required for heating, and the fifty per cent reduction in fuel.

Hot water storage heating with electricity. *Domestic Eng.* **125**, Nov. 17, 23, 65 (1928).

Report of the heating system in the municipal electric works of Vienna, Austria, an eight-story building heated with an electric hot water storage system operated on night current only. A double layer, 7 inches thick, of "cork-stone" plate insulates the storage tanks; the static water pressure of the filled heating plant is 51 pounds in the storage tanks, at which pressure the boiling point of water is above 284°F.; hence, at the load temperature of 230°F. no steam is generated, though an open expansion tank on the roof is provided.

Electrically heated houses, E. B. DAWSON and J. F. LAMB. *Electrical World* **93**, 91–95 (1929).

The authors present the results of tests on two six-room houses heated entirely by electricity, one of which was insulated with cork board, and of a third heated by non-automatic coal-fired hot-air furnace, all essentially the same in floor plan and construction. The uninsulated house used 37,270 k.w.-hours for heating; the insulated house, 55.4 per cent as much; the coal-heated house 26,000 pounds of coal. Air conditions as regards both humidity and CO_2 were practically the same. It is concluded that if electric heat is to be used for heating in cold climates the house should be well insulated and tight. Tests with storage heaters give satisfactory results with 68.5 per cent of the current taken during "off peak" hours, 9 p.m. to 6 a.m. They are most practical in cold climates when heat is used over long periods, with radiant or connection heaters for quick auxiliary heat, and where a much lower off-peak power rate is offered.

Oil burner a valuable load builder. *Electrical World* **93**, 193–196 (1929).

A recent report of the National Electric Light Association on domestic oil burners shows their consumption of electricity to compare favorably with that of the electric refrigerator and that it is a load which power companies should develop. An interesting series of charts plot such data as the number of days which require artificial heat, and the daily and yearly load curves of a large number of oil burners in several cities in the United States; various motor types and sizes in use; and a comparison between coal and oil, and gas and oil consumption.

Recommendations for electric water heating. *Electrical World* **92**, 1039–1041 (1928).

A two-year study of European and American practices shows that Europeans have educated their customers in the peak problems of utilities and have created an outlet for their night load in water heating and to some extent house heating, with the use of two- and three-rate meters. The committee recommends the introduction here of off-peak, low-wattage storage type domestic water heaters, with a two-rate meter, using 50 to 75 gallon tanks with 3-inch insulation. The first cost should not exceed $175 installed, the servicing and upkeep are negligible, and the monthly amounts of current used may range from 300 to 600 k.w.-hours, without increase in plant or service equipment.

A new coke-burning domestic boiler developed. *Gas Age-Record* **63**, Jan. 12, 45–46 (1929).

Detailed description with diagram and photographs of a new water-cooled, coke-burning domestic boiler developed in the research laboratory of the American Radiator Company. It requires attention not more than twice in twenty-four hours, and ash removal but once a week. There is a heat exchanger which provides hot water for household use. Although designed for coke, it can be fired with stove or egg anthracite without change.

A new gas fire radiant, H. JAMES YATES. *Gas J.* [London] **184**, 600–602 (1928).

This new radiant, named "thermo-XX beam," is the result of several years investigation into the therapeutic properties of gaseous heating. It is noticeably more incandescent and unites a higher percentage

of visible and near infra-red energy than any before obtained, produces a sensation of comfort more nearly that of the sun's rays, and exposure to it can be borne longer than to the usual clay radiants because of the amount of infra-red radiation. Its improved appearance and the degree of comfort obtained is believed to be "only a first step forward in improving the quality of the energy emitted by a gas fire."

New smokeless fuel. *Gas J.* [London] **185,** 150 (1929).

The Gas Light and Coke Company, in conjunction with the Fuel Research Board, is putting on the market "Fuelite," a smokeless fuel which ignites easily and gives a radiant glow and is expected to prove more economical than good house coal.

How the gas refrigerator works. *Domestic Eng.* **125,** Dec. 8, 39–41 (1928).

Simple text and diagrams explain the gas refrigerating machine.

Milk in the household refrigerator, ANNA M. PABST. *Ice and Refrigeration* **76,** 14, 15 (1929).

Data from a study made in the Bureau of Home Economics of the United States Department of Agriculture to determine the optimum temperature for milk storage in the household refrigerator lead to the conclusion that temperatures of 45°F. and below are desirable because a marked increase in bacterial growth occurs between 45° and 50°F. The time held in storage is important, a temperature of 50°F. being satisfactory if milk be held for not more than 24 hours. A temperature of 45° in the milk compartment is obtainable in a good, well-insulated. well-constructed refrigerator; but temperatures above 50° are frequently found in household refrigerators and present favorable conditions for food spoilage.

New refrigerator offers market for kerosene. *Nat'l Petroleum News* **20,** Dec. 26, 89 (1928).

A new oil-burning refrigerator is offered by a well-known manufacturer of oil stoves. Running water is necessary for its operation. It uses the adsorption principle; the burners are placed on a sliding shelf which is drawn out for lighting and at once pushed back into a cabinet. Under ordinary conditions, the burners operate only once a day for about 1¼ hours and use 21 ounces of ordinary kerosene daily. A refrigerator with 5 cubic feet of storage space sells for $280.

Zoning the United States for refrigeration, D. P. HEATH. *Refrigerating Eng.* **16,** 175–177 (1928).

In an attempt to indicate the varying need for refrigerating and preferred trading areas for particular types of machines, four zones of maximum high temperature are suggested. These include a small area of 80°F., a large area of 80° to 85°F., a large area of 85° to 90°F., and one of 90°F. and above, upon which belts of appropriate humidity could be superimposed to indicate territories where refrigerating equipment of exceptional efficiency is needed; where, because of economic reasons, air-cooled or water-cooled equipment is most suitable or where hydro-electric power, natural gas, or similar resources were factors of choice.

Dangers involved in present methods of multiple refrigerator installation, FREMONT WILSON. *Refrigerating World* **63,** Nov., 25–28 (1928).

The inherent dangers in systems where the refrigerant from a common source is delivered to separate cabinets, a common practice in apartment house installations, lie in improper location and protection of compressors; use of soft copper tubing without proper protection or support; bad handling of tubing with dangerous connections; improper valves; storing unlimited amounts of refrigerant; irritant and flammable gases permitted in a building; lack of provision for warning of danger from leaks or in case of fire; and leaks due to strain on the connections when the cabinet is not unmovable. Photographs of dangerous installations are shown and data given on the dangerous effects of common refrigerants, with a plea that no multiple, direct expansion systems be per-

mitted and a safety code such as that of New York City be generally adopted.

Haushalt-Kaltemaschinen [Refrigerators for home use]. *Zeit d. Vereines Deutscher Ingenieure* **71,** 1436–1440 (1927). Abst. in *Intern. Rev. Agr.* **19,** 557–560 (1928).

Brief descriptions and diagrammatic illustrations are given of the action of new types of domestic refrigerators of the absorption type, without movable parts.

Symposium on schoolroom ventilation. *Am. J. Pub. Health.* **19,** 55–71 (1929).

New Haven, Connecticut, LEONARD GREENBURGH, 55–59.

In two groups of schools, comparable as to age and nationality of pupils, one mechanically ventilated, the other window ventilated, the incidence of absences due to respiratory diseases was 3 per cent in the former and 1.8 in the latter. Similar striking differences are consistently maintained in corresponding grades. The factors of humidity and air motion merit further study.

Cleveland, Ohio, LYMAN W. CHILDS, 59–64.

In a similar study, the pupil absences from respiratory ailments in fan ventilated rooms were twice as frequent as in rooms with natural ventilation. The humidity of fan-ventilated rooms was lower than the open-window rooms, and the greatest prevalence of colds were in the rooms with the lowest humidity.

Syracuse, New York, THOMAS J. DUFFIELD, 64–70.

Reports of the second year's study differ from the first year's findings of clear-cut superiority of the furnace-gravity schools, and are contradictory and confused. Further evidence is necessary before conclusions can be drawn.

Summary and Discussion, C.-E. A. WINSLOW, 70–71.

On the whole "it is apparent that respiratory disease in window-gravity ventilated rooms is only two thirds that in fan ventilated rooms. This does not seem due to higher room temperatures nor to differences in relative humidity but probably either to the effects of local drafts or to some influence upon the electrical condition of the atmosphere incident to passing over highly heated surfaces." Without understanding the causes involved we are justified in preferring window ventilation, since it does cut down by one third the incidence of respiratory diseases in class rooms.

Developing electric service for the farm. *Nat'l Electric Light Assoc'n Publication* **289–12,** Dec., 1928.

The first of a series of reports to show in detail the way in which rural electric service has been developed by certain light and power companies. The organization and methods of the Wisconsin Power and Light Company are given here in detail, with rates, contracts, service, and equipment successfully used. The number of farm consumers is shown to be rapidly increasing, as well as the energy consumption, which showed an increase of 44.4 per cent over a two-year period, with an average consumption by customers on the uniform rural rate of nearly 100 k.w.-hours per month.

The cost of comfort: A handbook on the economy of dwelling insulation, National Lumber Manufacturers' Association, Washington, D. C. *Construction Information Series* **4,** Chap. 11, 1–80 (1928).

A presentation for the builder or householder of the efficiency and economy of different types of insulation in private dwellings. The first six pages are devoted to a brief discussion of how to compute the costs of keeping a house at a given temperature, in different climates, and with different types of construction, with figures showing the reduction of fuel made possible by the use of various types of insulation, weather stripping, and window construction. By way of illustration, the data are then applied to a house of given plan, built in a given city at given prices for labor and materials. Other charts and tables make possible similar calculations for other dwellings, and show construction and heating costs with different types of walls, attic floors, and roofs, the figures being those generally accepted by construction engineers. The calculations

show that the annual cost of maintaining a comfortable temperature per 2000 feet of wall surface is least with standard lumber construction with drop sidings, and that the difference between this and the cost with 8-inch concrete, the least economical of the ten types shown, is $121.26.

Overcoming noise in the home, DONALD A. LAIRD. *Hygeia* **7**, 50–52 (1929).

Attention is called to the fact that noise affects us adversely even though we are unconscious of it. Hence, we should attempt to shut out of our houses as much noise as possible and provide for absorption of that which forces its way in by the use of furnishings with high sound-absorption values.

Aluminum, der Hausbaustoff der Zukunft [Aluminum, the building material of the future], W. R. *Haustechnische Rundschau* No. 15, 130–131 (1928).

It is suggested that aluminum may be used for changeable inside walls, making possible new divisions of the house. Also, window frames, doors, cabinets built into the walls, stairways, and roofs of aluminum are proposed. Soundproof materials are needed in connection with many of these constructions. As wall covering, aluminum has a sure future; one kilogram of aluminum can cover 60–65 square meters. Such walls reflect light well, radiate little heat, are decorative, washable, chemically resistant, and protect against humidity from without. An experimental house having the above mentioned features will be erected by an association of engineers.

Fundamentals of the smoke nuisance, SAMUEL S. WYER. Bulletin of the Fuel-Power-Transportation Educational Foundation, Columbus, Ohio, 1929, pp. 23.

The serious menace created by smoke is forcibly presented in the belief that when public opinion is educated to realize the real and unnecessary burden it puts upon the community and the fact that smoke can be eliminated without cost and at a saving for each family, present conditions will not be tolerated. Smoke is shown to lower resistance to disease, injure buildings, drive people out of cities, damage merchandise, increase cleaning needs of all kinds, injure plant life, and increase the consumption of artificial light. Smoke results from the incomplete combustion of bituminous coal and represents the volatile matter which escapes as soot, made up of carbon, tar, ash, often with sulphur compounds. Raw bituminous coal can be processed, driving off the volatile matter and leaving coke, a smokeless fuel. Industrial plants, even locomotives, can with proper mechanical means burn raw bituminous coal without making offensive smoke; but domestic fires, because of lower temperatures, slower combustion, lower chimneys, and less expert firing are responsible for most obnoxious smoke. The remedy in their case lies in better firing if bituminous coal is used; in the substitution of smokeless fuels such as electricity (as yet impracticable), manufactured or natural gas, fuel oil, anthracite coal, or coke; or in the introduction of district steam or hot water heating plants with lines to the individual homes.

Smoke abatement by ordinance can only be successful when supported by community sentiment.

Umschau [Miscellaneous]. *Rauch und Staub*, Sept., 95 (1928).

The fight against dust is shown to be an important part of domestic work and to have been the subject of a special department at the exposition "Heim und Technik," held in Munich in 1928. Stairways were exhibited having "corner-protectors," small pieces of wood shaped and fitted into the corners to prevent accumulation of dust.

Now 19,012,664 wired homes. *Electrical Merchandising* **41**, 60–63 (1929).

Interesting statistics are presented regarding the number of residential electrical consumers by states, as of January 1, 1929, the number of consumers added during 1928, the comparative sales for 1928 of some thirty electrical household appliances, and

the proportion of wired homes using each of ten major appliances. Thus 93 per cent of the wired homes own electric irons, 40 per cent own cleaners, 30 per cent own washing machines, 6.4 per cent own refrigerators, and 3.8 per cent own ranges.

Den elektriske koknings og opvarmnings utvikling, 1918–1928 [Development of electrical cooking and heating, 1918–1928], PER KURE. *Elektroteknisk Tidsskrift* (Oslo) No. 29, 363–364 (1928).

The rapid development in Norway is reviewed by the president of the Norwegian Motor and Dynamo Works, and among the contributing factors are mentioned the work of the Commission appointed by the Norwegian Department of Agriculture which conducts and publishes results of tests on electrical household equipment (See J. HOME ECON. **19**, 185–188, 1927). The author maintains that power plants, manufacturers, retail dealers, and consumers alike have reason to be satisfied with this undertaking.

Konsumökning [Increased consumption], H. GROSCH. *Elektroteknisk Tidsskrift* (Oslo) No. 34, 431–433 (1928).

The various ways of increasing household consumption of electricity are discussed, and mention is made of recent experiments to test the comparative efficiency of "open" and "closed" hot plates; contrary to popular belief, the two types were found to be equally efficient when cooking utensils with curved bottoms are used, and the "closed" type proved far superior in heating effect with flat-bottomed cooking utensils.

Prüfung von Installationsmaterial in Schweden [Testing of Installation Material in Sweden]. *Elektrotechnische Zeitschrift* No. 40, 1484 (1928).

The establishment of "Svenska Elektriske Material Kontrollanstalten" by the Swedish Electric Power Plant Association and the Swedish fire insurance companies is briefly noted. Among articles to be tested, household cooking and heating appliances are mentioned.

Occupational hazards of the housewife, FRANCES SMITH DEAN. *Forecast* **37**, 99–100, 126 (1928).

A discussion of statistics similar to those issued by the National Safety Council, showing that five million injuries and 25,000 deaths, 9,400 of the latter to children under 15 years of age, result each year from accidents in the home, most of them preventable. These accidents are due to ignorance of the nature and proper use of electrical, gas, and mechanical household appliances, carelessness and willingness to take a chance in the use or arrangement of equipment, and hurry in the effort to save time and money that leads to the attempt to do too many things at once. Fires, explosions, accidental electrocutions and gas asphyxiations, crippling falls, and blood-poisoning from minor injuries are but a few examples.

Die Technisierung des Haushalts [Technical progress in the household], FRAU DR. MARGIS. *Haustechnishe Rundschau* No. 15, 149–150 (1928).

Scientific management in the home is discussed and mention is made both of studies of the larger types of labor saving equipment and also of attempts to standardize dishes, cooking implements, knives, and other small utensils.

Hauswirtschaft [Household Economics]. *RKW Nachrichten* No. 1, (1929).

In recognition of the importance of the household in social economy, a "Household Economics Division" has been formed by the "Reichskuratorium für Wirtschaftlichkeit" (approximate translation, "National Board for Scientific Management"). It is composed of representatives from housewives' organizations, consumers' leagues, industry, artisans' associations, wholesale and retail dealers, architects, schools, and others interested. This group furthers the idea of more scientific management in the household and points out pressing problems to be worked out by smaller committees. A collection is being made of the literature and projects pertaining to home management, which will later be

available to the public. Information and advice are already furnished. The efficiency of household processes is to be tested jointly by technical experts and practical housekeepers. The plan is to issue publications and prepare lectures and slides on subjects such as nutrition, preparation of food, household lighting and equipment.

Grenzen des hauswirtschaftlichen Arbeitsorganisation [Limits of scientific management in the household], GISELA URBAN. *Technik im Haushalt*, No. 18 (1928).

Hildegarde Kneeland's article on "Limitations of Scientific Management in Household Work" (J. HOME ECON. **20**, 311–314, 1928) is interpreted, and the main thesis conceded. At the end the question is raised whether improved technique may not give the housewife time for more conscious and intensive interest in family life as distinct from housekeeping.

Zusammenarbeit von Ingenieur und Hausfrau [Cooperation between engineer and housewife], CHARLOTTE MÜHSAM-WERTHER. *VDI Nachrichten* No. 52, 7 (1928).

The housewife has previously turned for help to agriculture, industry, and trade, to experts in nutrition and the physiology of labor, and to architects. Now she comes to the engineer for advice about the efficiency of equipment, the cost of operation. Among subjects on which collaboration is recommended are problems of heating; if a stove is to be cared for by a woman, it must be constructed so that the task is adapted to her physical strength, and the oven should not be placed too low in the range. Cheaper types of washing machines must be devised, those now available in Germany not being within reach of the working class. In general, labor saving devices must be constructed so that the time spent in starting, taking apart, and cleaning them does not outweigh that saved in operation. The present installation of light and lighting equipment is unsatisfactory and costly. Emphasis is placed on the importance of having representatives of housewives test new equipment before it is put on the market.

Warum ist die hauswirtschaftliche Bewegung in Amerika so erfolgreich? [Why is the home economics movement in America so successful?], LOTTE MATSCHOSS. *VDI Nachrichten* No. 52, 8 (1928).

The secret of American success, including that in home economics, is considered by the author as lying in the point of view that everything always needs improvement, in the attempts to "create a feeling of need," and in the ability for organizing cooperation. Another fortunate element is the close cooperation between the home economics and other departments in the universities. Contact with industry and with homes has also been fruitful. The author (who recently took a master's degree at that institution) describes the extensive research work done in Iowa State College on electrification of rural homes. The most important feature of her American experience she considers to have been the understanding acquired of the essentials of home economics, of methods of approach to its problems, and of the success attained. It is even more important for Germany than for America to organize household work scientifically, because it is so much more strenuous in the former country. Practical methods for accomplishing this are recommended. As a good beginning is mentioned the traveling exhibit "Heim und Technik" (Home and Technique) arranged by the Association of German Engineers.

H. R. H. and M. C. H.

MISCELLANY

"Early Discovery, Early Recovery." This is the slogan of the nation-wide campaign to be conducted in April by the national, state, and local tuberculosis associations in the hope of impressing upon the public the importance of recognizing this disease in its early stages when the chances of control are still good. The cooperation of all interested organizations is requested; and practical aids to publicity may be obtained from a local or state association or from the National Tuberculosis Association, 370 Seventh Avenue, New York City.

Child Health Day. "Teamwork for Child Health" is the title of a pamphlet of suggestions for a year-round program and special celebration of May Day as Child Health Day, which has been issued by the American Child Health Association, 370 7th Avenue, New York City.

Year Book of Social Work. To supplement the information found in the more general annuals, The Russell Sage Foundation is preparing to publish, under the editorship of Mr. Fred S. Hall, a Year Book of Social Work which will probably include both descriptions of the work of national agencies engaged in various fields of social work and accounts of the year's developments in each field. In order to make the Year Book of the greatest usefulness, the Foundation, whose address is 130 East 33rd Street, New York City, will welcome suggestions from any who have had difficulty in obtaining current information regarding their own or allied fields of work.

Mary E. Richmond. The February issue of *The Family*, the organ of the American Association for Organizing Family Social Work, is devoted to this widely known and much loved pioneer in social case work. Six of her friends contribute as many articles, which together reflect the wide variety of her interests and the many phases of her influence in social welfare work.

Food, Nutrition, and Diet. The entire issue of *American Medicine* for November 1928, from editorials to book reviews, is devoted to the general subject of foods and nutrition. Specialists in various fields have contributed 29 papers which are grouped under the headings: Food and Nutritional Factors, General Dietary Considerations. Diet for Infants and Children, and Diet in Disease. Most of these papers summarize briefly the present status of knowledge on the selected subject with literature references, thus making the issue as a whole a valuable digest of recent research in the field.

Composition of Fresh Fruits. Another contribution toward the revision of the United States Department of Agriculture, Office of Experiment Station Bulletin 28, Chemical Composition of American Food Materials is now available as United States Department of Agriculture Circular No. 50, "Proximate Composition of Fresh Fruits" by Charlotte Chatfield and Laura I. McLaughlin.

Fermented Milks. A revision of "Fermented Milks" United States Department of Agriculture Bulletin No. 319-D by W. R. Albus reviews the history of the various fermented milks and emphasizes the recent increase in their use in the United States.

The Wholesale Grocer's Problems. Students of food marketing will find interesting facts regarding the grocery trade in the bulletin by J. W. Miliard which bears this title and which has recently been published by the United States Department of Commerce as the fourth of the Distribution Cost Studies now under way.

Itinerant Nutrition Service. The organization and aims of the travelling nutrition work carried on by a Maryland chapter of the Red Cross are described by Clyde B. Schuman in the *Red Cross Courier* for January 15.

A Traveling Kitchenette for Babies. All the equipment needed for preparing baby food and sterilizing equipment can be purchased at five, ten and twenty-five cent stores and packed into a small cheap suitcase, it has been discovered by Dr. Elizabeth M. Gardiner of the Division of Maternity, Infancy, and Child Hygiene, New York State Health Department, Albany. According to *Better Times* several such sets are available for exhibit, presumably in that state.

Research in Nutrition and Parent Problems. The paper entitled "A Review of Research in Nutrition Pertaining to Parent Problems" by Julia Outhouse of the Merrill-Palmer School, Detroit, presented at the Des Moines meeting of the American Home Economics Association, has been printed in pamphlet form by the National Council on Parental Education, 41 East 42nd Street, New York City, and may be purchased there for 15 cents a copy.

Playgrounds in Jerusalem. Mrs. Bertha Guggenheimer furnished the means for equipping and providing a trained director for a playgroup just within Zion Gate in the Old City of Jerusalem and at her death left $100,000 to maintain it and others to be established. One is planned for the new part of the city outside the walls, one for the new Jewish city of Tel Aviv, and urgent requests for others have come from Haifa and Tiberias. According to a news item from the United States Children's Bureau, 600 boys and girls of many races, religions, and classes are learning to play together in the one in old Jerusalem.

Books for Parents. Announcement is made by *Children, The Parents' Magazine* (formerly *Children, the Magazine for Parents*) that it will from time to time issue books of special interest to parents. Volumes by Frank Howard Richardson, Elizabeth Cleveland, John E. Anderson, and Florence L. Goodenough are now in preparation. W. W. Norton and Company, Inc., of New York, will be co-publishers in charge of trade distribution.

Silk Weighting. As a result of the standards put out by the Silk Association of America to limit the weighting in different types of silk fabrics (see February JOURNAL, page 147), a special committee of technical experts from different branches of the silk and allied industries has been formed to conduct a six-month's study of the proposed standards. The latter have aroused much discussion, as indicated by an article in the *Dry Goods Economist* for January 19, 1929.

Sewing Machine Museum. In the newly enlarged offices of the Willcox and Gibbs Sewing Machine Company in New York City, space, according to the *Canadian Textile Journal*, will be provided for a museum showing every model made by the company in its 70 years of existence, from the first single-thread machine to the latest high-speed machine of intricate timing and master workmanship.

Materials for Underwear. A recent statement from the United States Department of Commerce, quoting from figures obtained by the National Retail Dry Goods Association through a questionnaire sent to 100 stores in 38 states, says that of the dollar value of the retail underwear sold during the year ending February 1, 1928, 210 per cent represented rayon garments, 35 per cent silk, and 25 per cent cotton. Measured in quantities sold, rayon represented 42 per cent, cotton 30 per cent, and silk 28 per cent.

Winter Sports and German Women. The extent to which German women are interesting themselves in winter sports may be judged from the fact that the January issue of *Neue Frauenkleidung und Frauenkultur* devotes several articles and most of its fashion pages to the subject. The costumes in the reproduction of pictures of delicate females of earlier generations genteelly indulging in such sport are in amusing contrast to the trousers and zipper-closed shirts recommended for the woman of today.

Dressmaking Made Easy. Miss Laura I. Baldt of Teachers College, Columbia Univer-

sity, has prepared for the McCall Company, manufacturers of dress patterns, a practical little book of dressmaking suggestions entitled "Dressmaking Made Easy."

Commercial Laundries. The case for commercial laundries as the place for doing the family washing is skilfully and attractively presented in the pamphlet "Alice in Launderland" recently issued by the Laundryowners' National Association of LaSalle, Illinois.

Governor Roosevelt and Public Health. The personal experience with physical handicaps, which Governor Franklin Roosevelt gained as the result of an attack of infantile paralysis in 1921 and his heroic, intelligent fight to overcome its effects, is reflected in his inaugural speech. In it he emphasizes the wisdom of the state in providing a special place adequate to care for its 50,000 cripples, many of whom may by such care be returned to useful citizenship. He also urges the development of the famous mineral springs at Saratoga for health purposes, under medical supervision comparable to that at similar springs in Europe, and as a beginning asks for the appointment of a commission of medical and technical experts to work out a careful plan for this benificent development.

Fatal Home Accidents. Asphyxiation due to poor ventilation is said by the National Safety Council to have been the most frequent cause among the two thousand fatal accidents in homes reported in December from 32 cities with a total population of twelve million. Cold weather and tightly closed houses of course increase the dangers from leaky stoves and pipes. Another frequent cause, not only of personal injuries but also of fires, is the careless use of explosive dry-cleaning agents such as gasoline. The Council is strongly opposed to the use of such materials around the home and reminds the public that "gasoline fumes can travel thirty feet and be explosive even in open air, and that it multiplies its own bulk 130 times when vaporized, or into 1,560 parts of explosive gas. A spark will ignite it."

Scientific Writings and Writers. Anyone concerned with the publication of scientific papers will find food for thought in an address entitled "The Biological Article and the Obligations of Its Author" which Dr. Clarence E. McClung delivered before the zoological section of the American Association for the Advancement of Science in New York last December and which appears in *Science* for February 8, 1929.

Experiment Station Record. In the interests of economy, the Record made slight changes in the arrangement of its contents, beginning with the January issue. The December editorial describing the proposed changes is suggestive for the insight it gives into what might be called the philosophy of the make-up of a periodical devoted to abstracts from a wide variety of scientific fields.

Journal of Adult Education. In February appeared the first number of the magazine issued by the American Association of Adult Education, 41 East 42nd Street, New York City, and others are planned for April and June of this year. It is hoped that the venture will prove successful enough to be continued regularly thereafter. Mary L. Ely and Morse A. Cartwright are the editors, and Alvin Saunders Johnson is chairman of the editorial board. Contributors to the February issue include James Harvey Robinson, Glenn Frank, Everett Dean Martin, Edward L. Thorndike, and others well known in the educational world.

Intellectual Cooperation. The Institute of International Cooperation, 2 rue de Montpensier, Paris, has begun the publication of a monthly review *La Cooperation Intellectuelle*, which takes the place of its earlier bulletins and which aims to present the progress of the movement as regards both the better general understanding among peoples and the closer relations of special groups. In addition to sections devoted to "Chronique" or news, and to literature, there are several contributed articles in the first issue, including one on educational

moving pictures by M. C. Lebrun of the Paris Institute. The constitution of the new International Institute of Educational Cinematography in Rome is also given.

Research in Education. "A Bibliography of Research Studies in Education 1926–1927" which has been compiled by John D. Wolcott and published in the United States Department of Interior, Bureau of Education Bulletin, 1928, No. 22, is a classified and annotated list of studies reported to the Bureau during the year ended June 30, 1928. Eighteen items are listed under home economics.

Requirements for High School Graduation. The general conditions governing graduation requirements from high schools in the United States, together with discussions of those set up for state and local systems and individual schools are given by Carl A. Jessen in the United States Department of Interior, Bureau of Education, Bulletin, 1928, No. 21.

Education in England. The general reports of the various educational meetings held, as usual, in England during the Christmas holidays, show that two subjects attracted special attention. One was closer cooperation between the schools and the industrial and commercial world. The other was the value of routine school examinations and possible substitutes for them, a question apparently raised by the interest in progressive education.

Modern Art. Mr. H. W. Kent, secretary of the New York Metropolitan Museum of Art, gives excellent, sensible suggestions on how to judge contemporary design and its place in the home in an article entitled "Modern Art Makes Itself at Home" in the *Woman's Home Companion* for January.

Interior Decoration. What the interior decorator's job is and how one might best enter it is told by Amy Ferris in *Independent Woman* for January. She forsees the disappearance of the individual decorator's establishment and the appearance of cooperative groups of trained specialists who will pool their overhead.

Wages in Colonial America. A skilled worker in Colonial days is said by a writer in the *Monthly Labor Review* for January to have earned about as much in a day of 12 or 14 hours as the corresponding American worker now earns in an hour. Other interesting features of life and work in that period are brought out in the same paper.

Status of Sex Education in Senior High Schools. A survey of this subject has recently been made under the direction of the Surgeon General, United States Public Health Service, in collaboration with the United States Bureau of Education and its findings published as V. D. Bulletin No. 87 of the Service. The joint authors are Lida J. Usilton of the Public Health Service and Newell W. Edson of the American Social Hygiene Association. Among the school departments through which sex education is integrated, biology ranks highest; home economics ranks low, even for its general social aspects.

Canadian Fur Trappers. Fur trappers in Canada are reported by the Assistant Trade Commissioner of the United States at Ottawa to earn from $5,000 to $10,000 a year and to rank among the best-paid workers in the Dominion. Their prosperity is reflected in the elaborate equipment of their shacks, victrolas, sewing-machines, and especially radios being common in the isolated districts.

State Laws on Cleanliness. The status of legislation in the various states regarding cleanliness in barber shops, bathing establishments, restaurants, food handling industries, jails, public utilities, and schools is discussed and tabulated in the *Cleanliness Journal* for January, 1929. Another article especially urges cleanliness in restaurants.

Training of Dining-Car Employees. To train new employees and improve the service of the more experienced, the Pennsylvania Railroad has established special schools at Chicago, Columbus, Ohio, and Long Island City, New York according to *Monthly Labor Review* for December, 1928. Each employee receives an hour's instruction immediately on his return from road trips, or an average of about three hours a week. Exact reproductions of a dining car are installed, and supervisors and instructors are said to be men of wide experience not only in dining-car work but in large hotels and restaurants.

Bureau of Biological Survey. Sections of interest to home economists in the annual report which Paul G. Redington, chief of the Bureau, recently presented to the Secretary of Agriculture include accounts of work done to promote the conservation and production of fur-bearing animals and game birds and the reindeer industry in Alaska.

Heels and Shoes. Many interesting things about the business of making heels for shoes—their kinds, numbers, and where, how, and by whom they are made in the United States—are told in the January *Life and Labor Bulletin*, the organ of the National Women's Trade Union League of America. It appears that 95 per cent of women's shoes now have wooden heels, the covering of which is mainly done by unskilled, underpaid women in special factories. Reference is also made to the extensive importation of shoes made in Czechoslovakia by a company which learned its methods in New England and is now able to undersell American manufacturers.

Rayon Standardization. Press despatches have reported that European manufacturers of rayon have formed a committee to obtain the adoption of uniform standards and the employment of uniform commercial practices in the various branches of the rayon industry.

Government Publications Relating to Textiles. The Bureau of Foreign and Domestic Commerce, United States Department of Commerce, has revised the exhaustive list of titles first issued in 1927. The bulletin gives brief accounts of the 11 government bureaus whose work bears on some phase of the textile industry and classifies the briefly annotated references to publications according to raw fibers and the articles manufactured from them, including a section on dry-cleaning and laundry.

Greek Bobbins. Students of the history of textiles will be interested in the terracotta bobbin recently acquired by the Metropolitan Museum of Art and described in its *Bulletin* for December, 1928, especially in the closing paragraphs, which suggest the probable use of such bobbins in both Greece and Egypt.

Saskatchewan Consumers Cooperative Wholesale Society. A society of this name has been organized under the Saskatchewan section of the United Farmers of Canada which, according to a report from the United States Department of Commerce, is to deal with dry goods, groceries, hardware, coal, lumber, and other farm supplies.

Free Textbooks. A recent study by the United States Bureau of Education shows that in 19 states the law requires textbooks to be furnished free to children in elementary grades, in 23 it is permited but not required, while in 6 there are no laws on the subject. In 25 states the selection of textbooks is made by the state board of education or a special county textbook commission, while in the remaining 18 the books are selected by the district school authorities.

NEWS NOTES

GENERAL

American Society of Agricultural Engineers. The 23rd annual meeting of the Society is to be held in Dallas, Texas, during the week of June 16. Full information may be obtained at the headquarters of the Society, Saint Joseph, Missouri. The 1930 meeting is to be held at Moline, Illinois.

Child Congress. The place and time of the second General Child Congress organized by the Save the Children International Union have been fixed as the Hague, in 1932.

Economics of Fashion. Again this winter Professor Paul Nystrom offered his course in the economics of fashion in the University Extension program of Columbia University. Intended primarily for the trade, and for students of economics and business, it also contained material of decided interest to home economists and others concerned with problems of consumption, covering much the same ground as his recent book on the subject.

Educational Press Association of America. The annual meeting and luncheon were held in Cleveland on February 26 in connection with the Department of Superintendence. The two chief topics of discussion were the functions of different types of educational journals, introduced by Dean Wm. F. Russell, and the policies of typical educational journals as to reviews, by James F. Hosic.

Health Education Conference. The American Child Health Association is organizing a conference to be held in the vicinity of New York late in June at a time when it will not conflict with the meetings of the National Educational Association, the American Home Economics Association, or other educational groups.

Home Management Specialist. Miss Mary A. Rokahr, formerly of the University of Wyoming, has been appointed the first specialist in home management in the Office of Cooperative Extension Work, United States Department of Agriculture, and began her duties there on February 1.

Inter-American Educational Conference. In connection with the meetings of the National Educational Association in Atlanta, June 28 to July 4, President Lamkin has issued invitations to the ministers of nineteen nations of the Western Hemisphere, requesting their participation in a conference on problems of mutual concern. Before the conference was decided on, representatives of a number of the countries had been approached and had expressed cordial approval of the plan, which it is hoped will lead to some permanent organization.

National Housing Conference. The program of the conference which the National Housing Association, in cooperation with the Philadelphia Housing Association, arranged in Philadelphia, January 28, 29, and 30, was of more than usual interest to home economists because the individual home and its adaptation to the comfort and convenience of the family were more to the fore than at previous meetings of this kind. At a session devoted to "The Home and Its Problems," Hildegarde Kneeland of the United States Bureau of Home Economics, aroused active interest by her paper, "Abolishing the Domestic Lockstep—The Scientific Kitchen."

National Women's Trade Union League of America. The eleventh convention and first triennial of the League is to be held May 6 to 11, 1929, at the Grace Dodge Hotel, Washington, D. C. "The girl, her job, and the relationship between them is the first concern of the League and will be the main theme of the convention. There will be a survey of the educational campaign which the League has waged in the industrial south, a discussion of the wage relationship between the girl and

her job, of her chances for education, of the direction of public opinion toward her needs, and of industrial legislation." The members of the convention are the officers of the National League, and delegates from local leagues and affiliated organizations.

Pan-Pacific Women's Conference. Dr. Ethel Osborn, University of Melborn, Melborn, Australia, who has recently been travelling to promote interest in the conference to be held in Honolulu in 1930, spoke to a group of representatives of national women's organizations in Washington on February 20. It will be remembered that Dr. Louise Stanley represented American home economists at the 1928 conference and reported its work and plans in the January JOURNAL.

Textile Design Competition. The Art Alliance of America announces its thirteenth annual textile design competition and exhibition. One thousand, three hundred and fifty dollars will be awarded in prizes, including two general prizes of $250 each, one for the best design for costume fabric in either silk or cotton and the other for the best design for decorative fabric in silk, linen, or cotton, also various prizes of from $25 to $100 each. The donors are well-known textile manufacturers whose purpose is to stimulate the production of better designs by American artist-designers. Designs are to be delivered to the Art Alliance, April 11 to 13, inclusive. The jury will meet on April 16, 1929; the exhibition will be held April 18 to 27. Full information may be obtained from the Art Alliance of America, 65 East 56th Street, New York City.

NEBRASKA

Nebraska Home Economics Association. The next meeting will be held at Omaha, April 5 and 6.

Nebraska State Teachers Association. The home economics section was responsible for securing Angelo Patri as one of the instructors at the Association meetings in December. At the round table discussions which also were featured, Agnes Saunders led that of "Problems in Teaching Child Development;" Daisy Kilgore, "Problems in Teaching Adult Education;" Jane Hinkley, "Social and Family Relationships;" and Bess Steele, "The Girl's Bedroom."

Organized Agriculture. In January the twenty-fourth annual meeting of the home economics section was held on the Agricultural College campus. Isabel Bevier, professor emeritus of home economics in the University of Illinois spoke on "The Farm Home Can Be Ideal" and "The Far-reaching Influence of the Farm Home." Another interesting feature of the program was a series of round table discussions on the following subjects: "Children's Books" led by Nellie Williams of the State Library Commission; "Looking Forward in Extension," by Mary Ellen Brown, who is in charge of women's work in extension; "Property Rights of Nebraska Women," by Mrs. H. J. Baily of the League of Women Voters; "Some Behavior Problems of the Preschool Child," by Agnes Saunders, nursery school director; and "Beauty Spots in the Home," by Bess Steele of the home economics department. Similar meetings had been held at Alliance, Nebraska, on December 13 and 14. On account of the geographical location and the difficulty of attending the meetings in Lincoln, the western Nebraska section was inaugurated with profit to that section. Mary Ellen Brown, Bess Steele, and Mrs. Morse participated in the program.

District Conferences. The first of the series conducted by Birdie Vorhies, state supervisor of home economics, was held at Lincoln on January 25 and 26, the four others being held at Kearney, Sidney, Norfolk, and Lincoln, one each week-end. These conferences have been the means of helping teachers keep in touch with the newer phases of home economics and to do concentrated work on methods of teaching them. As the groups are small, each teacher has an opportunity to contribute to the discussion and to present her particular problems. Organization of home management units, methods in teaching social and family relationships, and ways and means of meeting the needs of homemakers re-

ceived major emphasis in the conferences.

University of Nebraska. In December the home economics department sponsored two exhibits: one from the New York School of Fine and Applied Arts and the other a collection of original European embroideries and weaving. This latter included a woman's bridal costume in homespun linen with rich colorful embroidery; a man's birdal shirt with huge sleeves embroidered in gold and colors; and wall hangings, rugs, and household articles of various kinds.

The girls' meat judging team of the University claims world championship, having won the contest at the International Livestock Exposition at Chicago on December 5. Later, it also won a similar contest at Kansas City when teams from agricultural colleges from all parts of the United States competed.

Since the passage of the Capper-Ketcham bill has made increased funds available for women's extension work, thereby creating a greater demand for trained young women in this field, 8 girls have enrolled in the course in methods and field work of home economics extension, which is being offered this semester to junior and senior students. The course is under the direction of Mary Ellen Brown, state leader of women's work in extension; and as it is planned to give methods and experience in extension work to those interested in preparing themselves for this type of work, it includes organization, methods of presentation, and field practice. It will not be given during the year 1929–1930.

The great demand for the course in large quantity cookery made it necessary to repeat the course a second semester. The limited registration, however, has prevented many students from taking it.

The new building to be used as a nursery school and laboratory for the course in child development has been completed and is now in use. Formerly, the children remained in school only in the forenoon; but now they stay all day, having their naps and lunch at school.

Next summer only graduate courses in home economics will be offered at the University.

Rebekah Gibbons of the home economics department recently spent a few days in Chicago taking examinations for the degree of doctor of philosophy. Her thesis on "The Effect of Body Build on the Dynamic Action of Protein in Dogs" had been accepted previously.

Marjorie Clark of the foods and nutrition division was married on December 22 to William J. Hiller. She will continue teaching in the department until the end of the present school year. She is now doing some cooperative work with the Bryan Memorial Hospital in a course in nutrition for nurses.

Jane Hinkley of the vocational education department is on leave of absence for work at the University of Chicago, where she will will teach during the summer term. Ione Hosman has been secured to assist in the vocational education department during Miss Hinkley's absence.

Agnes Richling, a recent graduate in institution management, is to be assistant in the College of Agriculture cafeteria for the remainder of the year.

Charlotte Barney is substituting in the extension division as home management specialist while Muriel Smith is convalescing from an illness.

Home demonstration agents recently appointed are: Leona Davis, Jessie Baldwin, Clara Noyes, and Edith Moss. Two more agents are to be appointed.

Wayne State Teachers College. Students of the class in children's clothing are making a study of the clothing of the children in the training school.

Unit courses in clothing selection, food selection, and home decoration were offered last semester to students not majoring in home economics.

Student Clubs. The following student clubs have affiliated with the state and national home economics associations: Arlington High School; Kearney State Teachers' College; Kramer High School, Columbus; North High School, Omaha; and Rock County High School, Bassett.

NEVADA

Nevada Home Economics Association. The annual meeting was held at Reno on October 19, following the meetings of the Nevada State Teachers Association. The year's program of work was discussed, and the following officers were elected: President, Gladys Wyckoff, Reno; vice-president, Della Mae Grubb, Carson City; and secretary-treasurer, Jessie Pope, University of Nevada. The association will hold another meeting at the time of the State Home Economics Contest in Reno this spring.

University of Nevada. Sarah Lewis, head of the department of home economics, has returned after a year's leave of absence.

Gladys Wyckoff, a graduate of the University of Missouri, has been secured as cooperating teacher at the Reno High School. Student teachers of the University gain actual teaching experience in the Sparks home economics department and at the Reno Senior High School for one semester each. Such an arrangement enables them to see how both vocational and non-vocational departments function. Their work is done in two differently equipped departments under the guidance of two critic teachers.

State Home Economics Contest. Plans are under way to make the Fifth Annual Home Economics Contest the biggest and best contest ever held. It is to be held this year at the University of Nevada from May 2 to 4. The girls will participate in contests in homemaking activities, and there will be exhibits of work done in different schools by girls in home economics classes. The purpose of the contest is to stimulate interest in home economics, to promote friendliness and cooperation, and to train the girls to become active and efficient leaders among young people in home and community life. Ruth A. Talboy, state supervisor of home economics education, is director of the contest.

NEW ENGLAND

New England Home Economics Association. The all-day, mid-winter meeting, which is always one of the most interesting events on the yearly calendar, was held at Simmons College on January 19. The program was in charge of the business section, of which Helen Butler is chairman. The subject of this meeting, the third on the general theme of child development and parental education, was "The Child's Home." At the morning session, Eleanor Manning of the firm of architects, Howe, Manning, and Almy spoke on "Architecture and Landscape of the Home in Relation to the Child;" and in the afternoon, Mrs. Della T. Lutes, director of the Priscilla Proving Plant, discussed the topic "The Furnishings of the Home in Relation to the Child." A special feature of the meeting was an exhibit showing what commercial organizations are contributing toward the health and education of children. Toys and books, clothing, furniture and electrical equipment, and food were included. Luncheon was served by the institutional management class of the college.

NEW YORK

New York Home Economics Association. *Central-Northern District.* The Northern District of the State Association recently merged with the Central District. Adele Chaney of the State Agricultural School of St. Lawrence University has been elected by the executive committee to fill the vacancy caused by the resignation of the former vice-president. Interest in the midwinter meeting of the new district at Syracuse on February 9 was manifested by the splendid attendance. The meeting began with a luncheon after which a short business session was held. In the afternoon, Dean Annie Macleod of the college of home economics, Syracuse University, discussed "Progressive Education in Home Economics," pointing out the change in emphasis which has taken place in education and the importance of helping the girl to solve problems of personal living, to form right habits of health and expenditure of time and money, and to appreciate home and family life. Cora Binzell, professor of education in charge of

teacher training in home economics at Cornell University and formerly with the educational department of McCreery's in New York City, spoke on "The Merchant Presents His Conception of an Intelligent Buyer."

NORTH DAKOTA

State Normal and Industrial School. A course in child care was introduced during the winter quarter, and it and one in related art are now requirements in the home economics department.

The Lillian E. Tingle Club observed Ellen Richards' birthday in December. Members of the club wrote a one-act play entitled "Rhyme but Reason," which was given at chapel on December 8.

Isabelle Hitchcock of the home economics staff attended the meeting of the American Sociological Society in Chicago in December.

State Teachers College. The Home Economics Club has organized a Related Arts Club. Among their recent activities was the making and selling of felt flowers, a ready sale being found for all that the members found time to make. These netted a fifty per cent profit.

University of North Dakota. Hazel M. Hauck has returned to the University after a semester's leave of absence for study in the dietary department of the Presbyterian Hospital in New York City.

OHIO

Ohio State Home Economics Association. The Association met with the home economics section of the Southwestern Teachers Association at the Hughes High School in Cincinnati on October 26. This was the first meeting of the year with the new president, Bertha E. Titsworth, presiding. At the council meeting, a committee of three with Dorothy Shank as chairman, was appointed to draw up a budget of finances. Luncheon was served to the group by the home economics students. Among the speakers on the general program were: Mrs. Florence LaGanke Harris of the home economics department of the Cleveland Plain Dealer, who spoke on "French à la Carte and English Ordinary," and Dr. John F. Lyman, head of the department of agricultural chemistry of Ohio State University, who spoke on "Recent Developments in Nutrition."

Central Ohio Home Economics Teachers Meeting. A meeting of the home economics section of the Central Ohio Teachers Association was held on November 8 at Columbus. Elizabeth Dyer of the University of Cincinnati presented "Present Day Problems and Home Economics." Tea was served by the home economics teachers of Columbus. This group voted to ask the Ohio Home Economics Association to hold its fall meeting in Dayton, the meeting place of the Central Ohio Teachers Association.

Cleveland Home Economics Association. The first meeting of the year was held in the Halle Auditorium on November 15. Professor Mary Parker, head of the Western Reserve home economics department, discussed "Vivid Personalities at the Dietetic Association Convention in Washington." Joan Rock of the Cleveland News, who spoke on "What the Well-dressed Woman Wears When She Goes A-Conventioning," proved a living example of her subject. "What the Budget Will and Will Not Do for Us," was discussed by Sarah MacLeod of the Cleveland Society for Savings, an authority on budgets, in a way to interest the married and single alike.

Joan Rock, formerly of the Cleveland News, accepted a position with the Royal Baking Powder Company of New York City on January 1.

Northwestern Ohio Home Economics Teachers Meeting. Mary Etta Fisher was chairman of the meeting of home economics teachers of the Northwestern Teachers Association on October 26 at Toledo. Alice M. Donnelly of the teachers training department of Ohio State University discussed "Some Newer Methods of Home Economics Teaching." "The Nursery School" was discussed by Edith Deadman, director of Ohio State College.

Southeastern Ohio Home Economics Teachers Meeting. The meeting of the home economics teachers of southeast Ohio on October 26 at Portsmouth was presided over by Beryl Cone, a critic teacher at "The Plains," Athens. Hazel Huston of the teachers training department of Ohio State University discussed "The Unit Plan of Teaching Home Economics." A general discussion of "New High School Standards in Home Economics" followed.

Antioch College. Mary Moody, formerly of the National Kindergarten and Elementary School, has succeeded Mrs. Bush Smith as assistant director of the nursery school. The school now occupies a beautiful site adjoining the campus, in the midst of an acre of trees, shrubs, flower gardens, and play-grounds.

Both young men and young women have been enrolled in the classes in child training during the past year.

Julia Turner, in charge of institutional management, has been granted a two-months' leave of absence. She will visit many schools in the west and will spend some time in California and possibly in Honolulu.

Ohio State University. Alberta Ross, formerly of the State Teachers College, Harrisonburg, Virginia, is a new clothing specialist in the home economics department.

Medora Grandprey, a graduate of Iowa State College, is the new instructor in the nursery school.

Extension Service. The position of home demonstration agent in Franklin County made vacant by the marriage of Florence Walker on November 10 to Lawrence Patch, a United States Department of Agriculture entomologist at Sandusky, is being filled by Nellie Watts, formerly home demonstration agent in Warren County. Mrs. Edith Hilliker, formerly home demonstration agent in New Hampshire has accepted a similar position in Warren County.

Bernice Baily, formerly home demonstration agent in LaSalle County, Illinois, has succeeded Effie Goddard as home demonstration agent in Lucas County, Miss Goddard having recently married C. M. McEwen, agricultural extension agent at Delaware, Ohio.

Edith Holmberg has been appointed home demonstration agent in Columbiana County.

Anne Biebricher, after spending last year studying at Columbia, has returned to the Extension Service as home furnishings specialist.

Geneva Bane, home management specialist, has resumed her work after a year of study at the University of Wisconsin, where she took her master's degree in rural economics.

Martha Foster, a new member of the staff, was connected with the Colgate Company prior to her coming to the University.

Ohio Wesleyan University. Frances Johnston is the new instructor in foods.

The class in advanced nutrition is now having an opportunity to study special nutrition problems on a group of experimental rats.

Because of the increased enrollment, Mrs. Eunice Clark has been added to the staff as a part-time assistant in the clothing department.

The Home Economics Club, whose members come from all the classes in home economics, is sponsoring as a recreation project a number of "get together" luncheons. The first was attended by 33. The finance committee is working to secure funds to send a representative to the meeting of the American Home Economics Association in Boston in July.

OREGON

Oregon Home Economics Association. The newly elected officers of the Association are: President, Frances Wright, Salem; vice-president, Edna Waples; secretary, Margaret McCoy, Portland; and treasurer, Mrs. Beth Bailey McLean. A plan to divide the state into ten divisions is under way, the object being to make possible group conferences of home economics teachers in the fall, many of them at the time of the county institutes.

Oregon State College. Dr. Ida Belle Lewis of Hwa Nan College, Foochow, China, who visited the college this winter, is

anxious to have a graduate of her school come to Oregon State College for two years training in home economics and then return to Hwa Nan to teach home economics. To make this possible, a special local committee is endeavoring to raise one hundred five-dollar shares for a period of two years.

Eloise Davison of the National Electric Light Association visited the college in January to discuss plans for equipping a machinery laboratory.

James R. Patterson of the New York School of Fine and Applied Arts is to be one of the visiting professors at the summer school. He will give courses in house planning and interior decoration and in state design.

Belle Lowe, associate professor of foods and nutrition at Iowa State College will also teach in the summer school. A graduate of the University of Chicago, Miss Lowe has had wide experience in the fields of nutrition and experimental cookery, and her course in experimental cookery is certain to prove a popular one.

Since its organization in 1914, the Home Economics Club has endeavored to promote closer relationships between its members and the faculty members of the home economics department, to study problems pertaining to home economics, and to give each member a greater realization of the important place home economics holds in the world of today. During the past few years, however, a more tangible aim has been added; namely, to raise money for an international scholarship fund, by means of which an outstanding foreign girl is enabled to spend one year at the college. It has been estimated that it costs the club $500 a year to do this. Half of the club dues are apportioned to this fund, and the balance is raised in various ways. Among the affairs held this year for this purpose were a chrysanthemum sale in October, a delightful Agricultural-Home Economics Ball, and a Chinese Tea at the lovely home of Dean Milam. Campus views also have been sold throughout the year for this fund; a sale of articles from Berea, Kentucky is scheduled for spring.

PENNSYLVANIA

Philadelphia. The program of the meeting of the home economics section of the annual Schoolmen's Week, which was held at the University of Pennsylvania on March 14 and was attended by educational workers from nearby states as well as from Pennsylvania, was arranged by a committee of which Helen Goodspeed was chairman. Cooperating with the Conference on Preschool Education and Education for Parenthood sponsored by the Philadelphia Parents Council, the section planned this year's program around the theme of parental education. Dr. Effie T. Waring of Cornell University and Flora Thurston were among the speakers, and discussions were led by Grace Godfrey of Drexel Institute and Gertrude Peabody of Temple University. Dr. Henrietta W. Calvin presided.

The home problems class of the South Philadelphia High School, taught by Elizabeth Willis, has made a study of home life in foreign countries. Reports on social conditions, social customs, and characteristic costumes have been given. An exhibit of dolls dressed in foreign costumes was arranged in the main corridor of the school, and later these dolls were donated to Christmas baskets.

State Teachers College, Indiana. Louise E. Millhouse, formerly of the University of Illinois, has been appointed instructor in related science in home economics to fill the position made vacant by the resignation of Mrs. John Hamill (nee Clara Nehrlich).

Ethel Oxley of the Home Management House recently spent three months in Europe traveling with her sister, who is an art instructor in Detroit, Michigan.

Student Club. The Home Economics Club recently presented the following two playlets at College Chapel: The "Clothes Line," obtained through the JOURNAL OF HOME ECONOMICS and adapted to meet the needs of college girls, and "Jean's Feeding Experiment," written by the class in nutrition. The efforts of the Club seemed much appreciated by the student body.

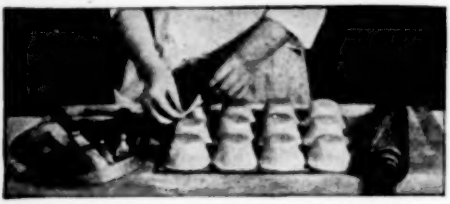
As helping others has for several years

Home Economics Teachers everywhere write us:

"ANY ONE CAN BAKE' is a valuable classroom textbook!"

For two crust pies: roll out half the pie crust thin and use for lower crust. Place loosely on pie plate, bring edges well over sides of plate, but do not stretch. Trim around edge of plate.

Roll out remaining paste for top crust. Place loosely over pie and press edges together with fork. Trim off edge. Make few slits on top to allow escape of steam.



For tarts and patty shells: cut paste into even pieces. Fit loosely over reverse side of muffin tins. Prick well with fork, trim edges and bake in hot oven at 500° F. about 12 minutes.

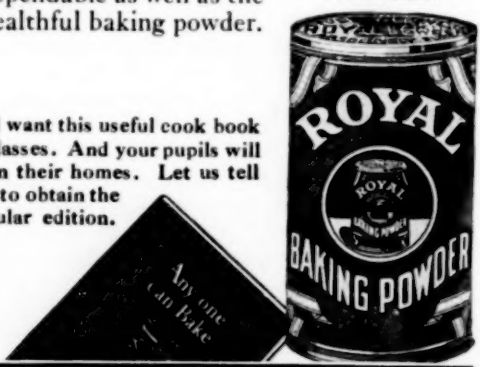
Berry pies are often made with "Lattice Top." In place of top crust, cut paste in long narrow strips. Place evenly across pie, then other strips across top to form lattice. Press strips well on edges of lower crust.

252 photographs show step by step how to bake cakes, pies, biscuits, waffles . . . there are new ideas for table settings . . . menus for special occasions . . . school lunch suggestions . . . an illustrated story on "The Evolution of Baking Powder" . . . and 264 recipes for cakes, pies, appetizers, sandwiches, soups and salads.

Each of your pupils will want her own copy of this helpful book to keep and use at home as well as at school. And, the new, popular-priced edition is now ready!

Every word of "Any one can Bake" is authoritative for it has been prepared by experts of the Royal Baking Powder Educational Department. Royal, made with pure Cream of Tartar, is known everywhere as the most dependable as well as the most healthful baking powder.

Royal, the Cream of Tartar Baking Powder. Absolutely pure



You will want this useful cook book in your classes. And your pupils will want it in their homes. Let us tell you how to obtain the new popular edition.

THE ROYAL BAKING POWDER CO., Dept. D
100 East 42nd Street, New York City

Please tell me how the new edition of "Any one can Bake" may be obtained for distribution in cookery classes.

Name .....

School ..... Grade .....

School Address .....

City ..... State .....

been one of the objectives of the Club, they decided this year to send the magazine *Junior Home Little Folks* to the school for natives at Hoonah, Alaska, in charge of Mrs. Frank H. Clark, the wife of the United States Commissioner at Hoonah.

TENNESSEE

University of Tennessee. The University now enioys the distinction of having two buildings devoted entirely to home economics instruction, one on the main campus, and one, dedicated on November 26, at the Junior College at Martin. The latter building is unique and beautiful with its early American architecture and furnishings. Reproductions of early American secretaries, tavern tables, chests of drawers, windsor and ladder-back chairs replace the usual office furnishings and are also used in the living and dining rooms. The arts and crafts laboratory, the living room, the dining room, and the child care laboratory also deserve special mention. The mantelpieces and bookcases in the living room and in the arts and crafts room are copied from those in famous early American houses. The nursery school, which is an integral part of the home economics department, is also charmingly furnished with attractive fireplace, corner cupboards, chairs, tables, and out-door and in-door play and work equipment which children enjoy. The parental education work is open to both boys and girls, and three boys are enrolled at present in the child care course.

The teachers in the home economics department of the Junior College are: Eloise D. Berry, who teaches clothing and art; Edith Hunt, food and nutrition, and Neta McFee, child care.

The annual meeting of home demonstration agents was held at the University from January 14 to 18, and the annual "Farm Women's Week" from January 21 to 26. Topics on the program of the latter were: Basketry, Bible study, clothing, textiles, dairying, foods, gardening, health, household equipment, household furnishings, judging home products, millinery, poultry, dressmaking, and nutrition.

Dr. Martha Koehne, associate professor of nutrition, is equipping an animal nutrition laboratory for research work in nutrition. The animals for starting this colony were the gift of Dr. Lafayette B. Mendel from his laboratory at Yale University.

VIRGINIA

Virginia Home Economics Association. The annual meeting was held in Richmond in the House of Delegates at the Capitol on November 30. The morning program included an address by John Archer Carter of the Chamber of Commerce and one by Dr. Uel W. Lamkin, president of the National Education Association. At the business meeting, officers for the next two years were elected as follows: President, Lillian Cummings; vice-president, Marian Williamson; secretary, Edna Horner; treasurer, Mary F. Smith; councillor, Mrs. Ora Hart Avery; editor, Ella G. Agnew; and newsgatherer, Mary B. McGowan.

At the noon hour, the retiring president, Mrs. Ora Hart Avery, state supervisor of home economics, entertained the new officers at luncheon.

At the afternoon meeting, Lillian Cummings discussed "What Are the Fundamental Principles of Home Economics?"; Ilena Bailey, "Home Economics Yesterday, Today, and Tomorrow"; and Julia Robertson, "Home Economics and Teacher Training Program."

The county home demonstration agents carried on last year 130 Better Food Clubs for juniors with an enrollment of 3700 to 4000 girls and boys. These clubs have for their object better food habits, particularly with regard to increased use of green and leafy vegetables, fruits, whole grains, and milk, and reduced use of tea, coffee, bottled drinks, and candy between meals.

A State Better Food Club for county and state home demonstration agents was carried on during 1928. Members were asked to practice the same food habits that are recommended to juniors; in other words, to practice what they preach.

State Teachers College, Radford. M'Ledge Moffett, dean of women and head

of the home economics department, is completing work toward her doctor's degree at Columbia University.

Extension Service. The premanent camp owned by the 4-H clubs of the nearby counties and established at Jamestown was made possible by the cooperation of the Chesapeake and Ohio Railroad Company and other interested friends. Reports show an investment of $5,000 and complete equipment for 200 people.

Mrs. Mary Moore Davis, for the last eight years state home demonstration agent, has resigned from her position. She remained in the State until April 1 to complete some special work she had been engaged in and now plans to devote some time to further study. Maude E. Wallace, formerly assistant state home demonstration agent in North Carolina, has been appointed in her place.

WASHINGTON

State College of Washington. Inez Arnquist has resigned as research specialist to accept the position of home demonstration agent in Whatcom County.

Elmina White, assistant director of the extension service, has resigned to go to Honolulu as head of home economics extension work there.

E. Belle Alger has accepted the position left vacant by Miss White, and Esther Sellig has been appointed nutrition specialist in the Extension Service to fill that left vacant by Miss Alger.

Miss Minerva Burnett was appointed as a part-time instructor in foods in the home economics department during the second semester of this year.

The following home demonstration agents have been appointed: Minnie Lowery in Lewis County, Lucy Dixon in Wahkiakim County, Sylvia Copp in Pend Oreille County, and Mrs. Mary Davis in Columbia County.

The annual state meeting of the Extension Service was held on the campus from January 9 to 17. Outside speakers before the home economics sections were: Florence Harrison, Leila W. Hunt, and Mrs. C. V. Aspinwall.

WYOMING

Wyoming Home Economics Association. The Association furnished $25 in prizes at the first state high school home economics contest, held at the University on January 9–10. The contestants and chaperones were entertained during their stay as guests of the University. The contest was in charge of the state supervisor of home economics and head of the home economics department of the University, and was divided as follows: food selection and preparation, clothing construction, and demonstrations. Twelve schools were entered with a total of twenty contestants. Prizes were awarded on the second evening at a buffet supper given the contestants by the seniors residing at the home management house.

University of Wyoming. Mrs. Lucile Rust, assistant professor of vocational education at Kansas Agricultural College, inspected the local chapter of Phi Upsilon Omicron on December 7 and 8, at which time Sophie McLimans and Madeline Affalter, senior and junior students in home economics respectively, were initiated.

The Home Economics Club in December increased the funds in its treasury by the sale of Christmas cards.

Extension Service. The annual State Extension Workers Conference was held at the University from January 7 to 12.

Mary S. Lyle, state supervisor for home economics education, attended the American Vocational Association in Philadelphia, in December.

Student Clubs. The following affiliated student clubs are reported: Campbell County High School, Gillette, Vivian Sutherland, secretary; Cokeville High School Cokeville, Gene Beunion, secretary; and Laramie High School, Laramie, Bernice Burton, secretary.